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AMERICAN AGRICULTURIST.

Designed to improbe all Classes interested in Soil Culture.

AGRICULTURE IS THE MOST HEALTHFUL, THE MOST USEFUL, AND THE MOST NOBLE EMPLOYMENT OF MAN.—WASHINGTON.

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WORK FOR THE MONTH.

"Flat on the hearth the glowing embers lie,
And flames reflected glow in every eye;
There the long billets forced at last to bend,
While frothing sap gushes at either end,
Throws round its welcome heat;—the plowman smiles,
And oft the joke runs hard on sleepish Giles,
Who sits joint tenant of the corner stool,
The converse sharing though in duty's school;
For now attentively 'tis his to hear
Interrogations from the master's chair."

BLOOMFIELD'S FARMER BOY

Our fathers brought the good old English fire-side over with them in the Mayflower, and though it has been displaced by the modern stove in most parts of the country, it is still in the vivid recollection of the generation now upon the stage. Houses built fifty years ago, had the broad open fire-place surmounted by the long ponderous granite mantle-piece, extending eight or ten feet from jamb to jamb. Many now living can recall the full length back log, the fore stick, and the long billets heaped high, and the roaring flame, bidding defiance to the winter's cold, the oven in one corner of the fire-place, the tub in the other, which served the double purpose of seat and dyeing establishment, where fast colors were given to the woolens, which made up the staple of domestic manufacture for winter, in the good old age of Homespun. The fire side has been contracting with every successive age, as the forests have waned; and our ideas of domestic comfort have advanced.

There is a great deal of poetry lingering about that old wide mouthed fire-place, which we enjoy mightily, as we look back upon it from the snugger and more comfortable parlors of modern times. But there was precious little comfort or poetry to the men and women, who were constrained to pass their winter life by that open fire in the kitchen, which in most cases served all the purposes of a sink room, kitchen, sitting room and parlor. There was a chill in the atmosphere of that room on such a night as this, which the cheerful blaze could not dispel. As one side thawed the other nearly froze, and every side took its turn of frost and fire. It was an uncomfortable spot in most instances, and belonged to a ruder age. The farmer's home has gained immeasurably in health, comfort, and domestic attraction, by bricking up the open chimney, and putting in the fire frame, the stove, the grate, or even the furnace in the cellar. We may not indeed see the fire, but the grand use of fire, at least in the winter, is to comfort another sense, and to give us opportunity to use the sense of vision, for a better purpose than gazing at the blaze.

It is worth while, as we are drawn up this evening around our cosey fire, to look back at Bloomfield's picture and contrast the society which it represents with the rural life of our own times. With winter comes opportunity for retrospect, and reflection, and we can hardly appreciate our own position, without comparing it with the past. There can be no doubt, that there has been a great change for the better, in almost everything that pertains to rural life, during the last half century. The material improvement in the homes and farms, in the tools with which they are wrought, and in the animals with which they are stocked, is but a fair index of the great moral change that has come over our farming population. We will not say that the uncomfortable fire place drove them forth to other resorts, but from some cause or another they went, father, and son, and hired man, with great uniformity to spend their evenings at the village store or tavern. The bar-room was ample, and always well heated and lighted, and furnished with genial company. No school of vice more prolific in woes, than this, could have been devised. It corrupted the rising generation as fast as they came upon the stage.

The brief work of the winter day being done, a large part of the male population of the surrounding country congregated here, to guzzle drinks of all the vile compounds into which New-England rum could be stirred, and to speak and act out the foolish and mad fancies these drinks inspired. These nightly gatherings, habitual during all the winter months, were terrible in their influence upon the public morals. Men did not live out half their days. Not even the healthful occupation of the husbandman could resist the blight of these winter carousings. Drinking inflamed the passions and led to betting and gambling, and often to quarrels in which many beside the combatants were involved. Feuds between neighbors arose, which only grew more bitter and hopeless of healing by the habits of the parties. Intemperance of course diverted men from their business, and proved as great a blight upon the industry, as upon the morals of the people. Every thing was neglected for the low pleasures of the tap room. The house went without paint inside and out, the walls and fences were broken down, and the farming tools were always out of repair. The cattle were not regularly foddered and watered, the barn leaked water at the top, and wind through the crevices, which were as numerous as the planks upon its sides. The mowing fields were run down, and the corn fields, half manured and half hoed, yielded maximum crops of nothing but weeds. The cattle were lean and long, and lean meat preponderated in all the pork that was killed. The children were not ready to go to school in the fall until long after the school had begun and were often interrupted in their attendance during the winter, by the father's improvidence. This of course brought on complaints at home, discouragement, low spirits, and peevishness, to be answered with bitter words, and with still further neglect. Domestic peace was destroyed, and home lost its charms. Mortage after mortage settled down upon the homestead, until it was all dissipated and passed into the hands of strangers.

What a change from all this, has come over the homes of our rural population. The old comfortless fire place has gone, and the kitchen of the olden time has resolved itself into separate apartments, adding a sink room at one end, a sitting and dining room at the other, and a parlor beyond that, which often sparkles as brightly with the glow of social life as its Franklin does with well seasoned hickory billets. The intemperance and low vices of the bar-room have been banished from many of our communities, and the rural population find their brightest pleasures at home. There is peace and comfort instead of bickering and strife. The sitting-room is neatly carpeted, well warmed and lighted, the whole household is well clad and all are cheerful and happy. Books and papers are there in abundance, and the conversation no longer runs upon scandal and gossip about neighbors, but upon the principles that underlie the business of life. The farmer not only has his political paper, but his journals devoted to agriculture, horticulture, literature, and religion. His labor is more intelligent and better rewarded, and he has time to give to reading and thinking, as well as to labor in the fields. No class in the community have more occasion for gratitude in the review of the past than our own. We live in happier days than our fathers, we have better houses, better food, and better cooking, better beds and better clothing. Everywhere there is a high degree of intelligence and civilization. The wants of farm-

ers have called into existence a class of journals that then had no representatives. The agricultural paper is a very recent idea not yet fully developed. The best of its class only foreshadows what is coming, when the whole farming population appreciate their position as well as the pioneers, and when the farm journal becomes a necessity in every farmer's home. This day is hastening, and when it comes, may we be there to see the journal that shall fully represent the intelligence, thrift, wisdom and wealth of the American farm. Such are our meditations, by the new fireside on this first day of the year of grace 1857. But other duties are pressing, and we must think of the comfort of those dumb creatures who are dependant upon us, as well as of our own.

THE CATTLE

demand our constant care, during this inclement season, and their appearance is no bad index of the character of their owner. Does not a lean, half-starved, unsheltered cow convict her owner of inhumanity as clearly as ever stolen goods in possession, convicted a thief? An enlightened public now holds the farmer responsible for every starting rib and bristling hair. It is well fed stock alone that are profitable.

"Now farmers to your helpless charge be kind,
Baffle the raging year and fill their pens
With food at will; lodge them below the storm,
But watch them strict; for from the bellowing East,
In this dire season, oft the whirl-wind's wing
Sweeps up the burden of whole wintry plains
At one wide waft, and o'er the hapless flock,
Hid in the hollow of two neighboring hills,
The billowy tempest whelms; till upward urged
The valley to a shining mountain swells,
Tipt with a wreath high curling in the sky."

Keep the cattle stabled, and there will be no danger from tempests and snow banks. Cattle buried alive should only be known in poetry.

FUEL.

Now is the time to lay in your stock of this indispensible article. You have not as extensive woodlands as your fathers, to cull from, and you have not an open fire place eight feet wide to fill. But the small stock, that is needed for cooking and for the parlor fire, should be well seasoned. There is great waste in burning green wood, as well as sore trials to the patience of the whole family. The swamps are now frozen and the maple can be cut and drawn home. See that the wood-house is well stored, while the weather favors sledding and carting.

TOOLS.

Look over the tool room and see what is broken, and what new tool is wanting. It will be a loss of time to have to send for it in the hurry of spring work. You must have some new tools, or fall behind your neighbors. There is a mowing machine able and ready to do the work of ten men. Is it economy for you to do without it? There is a horse hoeing machine, that supercedes the hand hoe. Why not get it? There is a horse potato digger, that will turn out potatoes as fast as ten men can pick them up. Why should you dig with the hoe? There is a corn husker that will do the work of four men. Have you got it? The farm moves on a brisk jog, and if you do not keep a sharp look out on the tool room, you will be left in the rear.

TRIMMING ORCHARDS.

This may be done in mild weather, if it was omitted in November. Thin out the cross limbs, and cut out the dead wood. If the trees are mossy wash with strong soap suds. If they are not thrifty, put manure under them now, and give them a fresh start. Well fed trees alone are profitable.

TRIM GRAPE VINES.

This is too apt to be neglected until February or March, when the sap has begun to start. If the vines are cut now, the wound will sere over, and no sap will be lost.

CUT BEAN POLES AND PEA BRUSH.

Both will keep much better if cut now, than when the sap is starting in the spring. The cedar swamps are now accessible, and a good stock may be laid in. Cedar poles are much more durable, than birch and alder. All the articles, that will be needed for the garden in the spring, should be provided now.

PLANS FOR 1857.

It is a matter of great importance to the farmer, that he should lay out the work of the season beforehand, and now is the time to do it. We need much more thorough system in our farming operations. Determine upon the fields you will cultivate, and what shall be allotted to oats, corn, rye, wheat, buckwheat, potatoes, and other root crops; what walls shall be reset, and what ditches shall be dug; and how much labor will be needed to accomplish the work. Leave nothing to be decided upon in haste. A great deal of time and mental labor will be saved, by making your plans deliberately at the beginning of the year. If there are doubtful matters, consult the best farmer in your neighborhood, and give his opinion due weight in your decision. A neighbor's experience will often save a useless expenditure of money and labor.

When your plans are laid, carry them out, month by month, and week by week, until the year is completed. If you need capital for your legitimate business, hire it. You can as well afford to pay interest for this purpose as any other business man. Turn not aside to speculation in anything that you do not understand. Glory in the farm, and live by it. With these suggestions, we wish all our readers a *Happy New Year*.

ASHES AS MANURE.

For certain kinds of soil no manurial application is more valuable than wood ashes. Theoretical chemists tell us that ashes furnish elements essential to the constitution of plants, and that they are most effective on soils deficient in the particular elements usually contained in ashes. Without discussing this *theory*, or attempting to settle the mooted question whether any mineral elements are necessary to be supplied as specific nutriment to plants on soils generally, we may refer to one point on which there is little or no dispute. All agree that decaying organic substances (animal or vegetable) when undergoing decomposition, furnish valuable food or stimulant to growing plants. Now most soils, especially those subject to standing water, contain more or less vegetable matter, such as roots of grasses, &c., which have acquired a kind of asphatic or carbonaceous condition, and decomposition has been arrested. An alkali—caustic potash, lime, or magnesia—added to such a soil acts upon the vegetable matter, hastening its decay, and fitting it to nourish plants. Too much alkali added in a single season may decompose the organic matter faster than it is needed, and much of it will be lost, and thus needlessly impoverish the soil. This is the frequent result of over-liming land.

In very many cases soils are acid, (sour,) and on these the alkalies are valuable to neutralize the acids and sweeten them.

Lime is much used, on account of its cheapness, but it is far less soluable than potash. Indeed, the carbonate of lime is scarcely soluble at all, while carbonate of potash is very readily soluble. Lime acts more to harden a soil. For these reasons alone potash is much more valuable than lime to the farmer.

The only cheap available source of potash is unleached wood ashes. The ashes of oak wood have often yielded six, eight and ten per cent of potash, and those of beech wood nearly twice as much. In leaching ashes, it is principally this potash that is washed out, and on this account leached ashes are of small value to cold, damp, sour land.

For dry, warm, sandy soils, the ashes are not, as a general thing, beneficial; but on peat, or muck swamps, or clay lands, and on wet loams, they are almost invaluable. No farmer should sell his ashes at anything like the usual price obtained for them. Good ashes are cheaper to use upon the soil at twenty-five cents per bushel, than slaked lime at half the price.

Coal ashes have also a higher value than is usually attached to them. Several careful analyses of the bituminous coal ashes have shown 1½ to 3 per cent of potash, while all hard coals yield a small per centage. Besides this, most families burning hard coal use more or less wood, or wood-coal, in kindling fires, which furnish additional potash. From several analyses of hard-coal ashes and cinders, as well as from many experiments upon soils, we think no one having the smallest plot of land should throw away coal ashes. Let them be saved carefully, and added to the soil, putting them especially upon the coldest, wettest portions. —Ed.

TWO WAYS TO COOK THE OYSTER PLANT.

1st. Scrape the surface of the roots as you would parsnips; boil till done; then mash them, and add an egg and some rolled soda cracker. Make up into cakes, and fry in butter. Serve up while hot.—Edit-*ress*.

2nd. Scrape the roots well, and cut them into thin slices; boil in one part milk and two parts water, until soft, and mash well; stir in flour enough to make them as thick as dough, and fry in butter.—Edit-*or*.

CALENDAR OF OPERATIONS.

JANUARY, 1857.

[We put down here a summary of various operations, many of them very common ones, it is true, but a simple catalogue like this will often suggest a piece of work that would otherwise be forgotten. The Calendar is adapted to the latitudes of 41° to 42°. A little allowance must be made for each degree of latitude—later north—earlier south. This table will be made out anew every month and adapted to the season of each year. It will also be greatly enlarged at the planting and sowing seasons.

EXPLANATIONS.—The letters f. m. l. refers to *first*, *middle*, and *last* of the month.

Doubling the letters thus: ff., mm., or ll., gives emphasis to the particular period indicated.]

FARM.

Barns—Have stables and stalls for cattle and horses and keep them well littered at night. If you have prepared a heap of dried muck, as we have urged in former numbers of the Agriculturist, use it freely now, either by spreading over the stables and stalls, or covering the manure heap with it, *after* each cleaning out of the stables. Keep the feeding or main floor clean, sweeping up the chaff and mixing with ground feed, wetting it sufficiently to cause the meal to adhere.

Cattle—Feed mostly under cover, cutting and steaming stalks as directed last month. When fed in the yards let the hay, stalks, &c., be put in racks. Watch cows about to calve and see that they have plenty of room and are well bedded at night. Cut and feed roots to milch cows *after* milking.

Cellars—Watch the approach of frost and double the windows, or put straw into them if frost is working in. Bins of potatoes or other roots may be covered with straw or blankets to keep them more secure. Do not move them in a frozen state.

Economy of the Farm—In addition to the directions of last month under this head, look well to the feeding of stock and making manure. Fodder that cattle often refuse will be eaten with avidity if cut and mixed with meal or shorts. Stalks cut and thrown into a cask or hogshead and steamed by pouring a few pails of hot water upon them and covering with a blanket, will swell out and make excellent food by adding a little meal. Use due economy in feeding hay, but be not too ambitious to sell largely, especially if you have to cart it some distance to market and pay the same money for manure, freighting or carting the latter equally as far; better increase your stock of milch cows and sheep, using your own hay and making manure on the farm.

Fowls—Keep in warm quarters, feeding well now that the ground is frozen or covered with snow. Cellars under barns or other buildings, or an excavation made in the side of a hill with a roof over it afford good shelter during winter. Give meat and pounded oyster shells, or lime to keep up the supply of eggs. Boiled potatoes and buckwheat cakes alternating with grain are good food. See article last month and elsewhere in this No.

Hogs—Give plenty of straw for bedding and make as much manure as possible by throwing in each day a little of the dried muck and leaves collected in the Autumn. Clean out the pens often and use absorbents (muck, straw or soil) to take up all the liquid.

Horses—Stable in warm well littered stalls, and blanket whenever standing out of doors. Let them cool off after driving hard before giving water. Feed carrots, if they can be had, instead of too much grain.

Marketing Produce—This is a good season to dispose of, at least a portion of the surplus products of the farm, and much care and calculation are requisite to do it with profit. Vegetables should only be taken out during mild weather. Hay and grain may be marketed when the cold is too severe for vegetables.

Sheep—Provide with suitable shelter, and if any are about to lamb—which is earlier than is best—put them in separate warm pens. Give salt, or feed salt hay occasionally both to sheep and cattle.

Wood—Cut and draw from the swamps while they are frozen and the sledding or carting good. Have a full year's supply, not only at the door, but cut, split and piled away under cover if possible, before the spring work commences upon the farm.

ORCHARD AND NURSERY.

Very little can be done during this month save root-grafting young trees in the house or cellar. In the nursery labels should now be made in sufficient numbers to last through the season of sales and transplanting. Prepare stakes for the head of nursery rows. Several plans have been adopted to mark with definiteness the rows and division of different kinds of apples pears, &c., as they stand in the row, the best methods are by using flat painted stakes, on which the names are written with a painter's brush; and by stakes nearly round with a chamfer taken from one side about one third the diameter of the stick, commencing at the end and extending downward say six inches. Pass a wire around one inch from this end of the stick and fasten it there by small nails, leaving it loose enough to slip a label in between it and the chamfer upon the stake. The labels are of pine about four inches long and one and a half wide by less than a half inch thick, and are painted upon the side next to the stake and rounded off upon the back towards the lower end, so as to fit the space like a wedge. The inner surface of the label is first painted and the names written on as wished, stakes made in this manner of locust or some other durable wood about three feet long, will last a life time and can be changed as desired, or the labels can be changed without moving the stakes.

Mice will probably be less troublesome this winter as the ground is now well filled with water. We however advise treading the snow around standards and choice varieties in the nursery rows to prevent their girdling the trees above ground.

KITCHEN AND FRUIT GARDEN.

Cabbages, Cauliflowers, lettuce, spinage, &c., in cold frames attend to, covering with straw or mats in very severe weather and admitting air whenever it is mild. Air must be given every two or three days even in severe weather, opening the sashes for a few minutes upon the upper sides. Remove any decayed leaves or plants, else the offensive odor will be injurious to the healthy growth of the others.

Hot Bed Frames—Have in readiness for use when wanted, glazing the sashes if necessary. If new ones are wanted make them of sound plank, two feet high on the back, and for six feet width, about 15 inches high in front and of any required length. Nail them firmly to similar plank five or six feet long, one end being two feet and the other 15 inches wide. Plain the upper edges so that a sash will fit evenly and closely upon them.

Mushroom Beds—Give extra covering during severe weather to those producing. Collect fresh droppings from grain fed horses to form new beds.

Raspberries—Examine the ridges of covered canes and throw more earth upon those which are exposed. It is sufficient that the earth entirely covers them, but the winter rains will sometimes wash them bare.

FLOWER GARDEN AND LAWN.

There is very little to do in this department at present except to keep an eye to the shrubbery, especially the evergreen, which will need a little care to prevent the snow from breaking down the branches. Shake off the snow which lodges on them and shovel away from those branches which are being drawn down by the settling drifts Loose straggling branches should be drawn up with bands or strings so as to prevent exposure to the drifting storms. If any bulbs were kept for late blooming in the spring and not planted last month, put them in at once if the ground can be worked. We by no means advise keeping them this length of time out of ground, as this puts back the blooming. Many however desire later flowers and to this end delay setting. But, a perfect flower in its season, is a far prettier sight than a partially developed, imperfect bloom out of season.

If new grounds are to be laid out in the spring this is a good season to form the plans and execute the drafts. Some of the main walks may be graded if the frost is not too severe, and hardy shrubs and deciduous trees may even be planted whenever the ground will admit of working.

Prepare labels and stakes for spring use, tying them in neat packages to facilitate the operations of a busy season.

GREEN HOUSE.

Air at all suitable times, not however allowing the temperature to fall below 35°. unless the house is filled with hardy plants. In cool weather it is better to raise the heat to 50°. or 55°. before admitting air. Open the top sashes a few inches in the middle of the day, and the front ones when the weather will permit. Exclude fogs especially, as they are very injurious to plants.

Camellias—Syringe freely and wash the leaves of those plants which are covered with red spiders, using a sponge and rain water. If the plants are properly syringed every evening during summer, and twice a week during winter, there is but little danger of the spider. In syringing at this season, guard against wetting the blooms as it will cause premature decay. Guttings may be made now.

Fumigate the whole house with tobacco smoke occasionally to destroy the green-fly, and use sulpher to kill or drive away red spider.

Heat—The particular temperature of the houses must be governed by circumstances. If a hardy collection of plants are grouped together in one room, the mercury may even fall below the freezing point, while a tender collection would require a much higher temperature. The temperature of each room should be as even as possible always raising it a little before admitting cold air.

Hyacinths, Jonquils, Narcissus and other bulbs—Examine with care and destroy any insects preying upon them. Carry a few of the most advanced to the hot house to forward them. Give water freely, and if in glasses change the water each week; place growing ones near the light

Orange, Lemons, Oleanders, &c.—Do not give too much water at this their resting period. If affected with scale, wash with strong soapsuds, or a weak solution of whale oil soap, syringing freely.

Water—Give sparingly and with caution, especially to those plants which are in an inactive state. Succulent, herbaceous and deciduous ones will only require a little once or twice during the month to keep the earth from becoming too dry. Other growing plants will require a watering once or twice a week, taking care not to dampen the floors, as a dry atmosphere is desirable at this season.

HOT HOUSE.

These will require particular attention during this month especially to guard against frost and the ravages of insects. The temperature must be as even as possible a neglect of even a few minutes may be very disastrous to tender varieties of plants.

Air—Admit every day if the weather will permit, lowering the top sashes a few inches about noon, but not permitting a draft of cold air to circulate through the room.

Bulbs—Bring a few Hyacinths, Jonquils, Ixias, &c., into the Hot House for early bloom, watering freely.

Cactuses—Keep in dry situations giving very little water.

Cleanliness should be constantly attended to. Sweep and wash the houses often. Pick off all dead leaves and syringe those plants which can not readily be washed.

Heat—Regulate as evenly as possible, putting on the shutters before sundown in severe weather. If left off till the temperature begins to fall it will take some time with a hot fire to get it up again.

Insects of various kinds will make their appearance and multiply rapidly unless checked at once. Tobacco fumigations will destroy green fly and fumes of sulphur—given with care is sure death to red spider, or daily syringing will effect the same purpose. Search out the mealy bug, and either collect by hand or immerse the plants affected in a solution of one pound strong soap, one half pound flour sulphur, one half pound leaf tobacco with one fourth ounce nux vomica and a teaspoonful of turpentine; the mixture to be boiled for three or four hours in two gallons of rain water. Scale may usually be destroyed by washing with strong soap suds.

Pines—Let the bottom heat of those fruiting be about 85°. giving water weekly.

Repotting of Fuchsias, Cinerarias, Pelargoniums, Roses, Primroses, &c., may be done at this season.

Syringe the foliage of plants daily to keep them fresh and free from insects.

Temperature should be from 55°. to 65°., never under 50°.

Water—Give daily to those plants which are dry unless this is their resting season. There is more danger of giving too much than too little at this season. The water should be taken from a tank or cistern in the house.

TO CORRESPONDENTS.

We must beg at least for "time" to reply to the great number of queries received. Before us is a mass of letters passed to the editorial desk, in which every conceivable thing is enquired for, from a steam engine to a package of three flower seeds. Now, though in offering to send the Agriculturist for $1 a year, we do not contract to spend five dollar's worth of time for each subscriber in hunting up machinery, implements, and making out prescriptions for the wants of the individual soils, on a thousand farms, yet we are disposed to be as obliging and affable as possible, and so, while most of our subscribers are asleep, we are four or five nights in a week tugging away at the pile of letters aforesaid. All we have now to say is, that if any correspondent thinks his or her letter neglected let him, (or her) remember that there are 15-000 readers of the Agriculturist, each one of whom is just as likely to ask questions by letter as himself. Remember, also, that there are but 26 working days in a month, and only 24 hours in a day, all told.

A BOY FARMER.—A voluntary agent of this paper in Chenango county writes: "In Guilford, I found a boy farmer about fourteen years of age; extent of farm, half an acre; products this year, eighty bushels of roots, besides corn, cabbages, cucumbers, beans, onions, &c., in abundance for his father's family. He sawed wood to get money to pay for the Agriculturist, and says, 'with this for a guide, his farming pays.'" That boy will "get along in the world."—ED.

CRANBERRY PLANTS WANTED.—We have had *many* recent inquiries as to where cranberry plants can be obtained, and at what price. Both upland and lowland varieties are inquired for. Those who have plants for sale would benefit both themselves and others by advertising the fact.

FARM FENCING.

This is a subject fast attracting the attention of our American farmers where stone does not abound. In our stony regions that material has heretofore offered the best, and on the whole, cheapest kind of fence, inasmuch as their removal from the fields has rendered the soil more available for cultivation, and furnished them with sufficient enclosures. The tendency among our farmers in general has been towards too much fencing; that is to say, a division of their farms into too many small fields, occasioning loss of ground, and much additional labor in tilling them by reason of "short bouts" in plowing, as well as giving harbors to the small vermin which all sorts of fence, more or less, protect in their depredations on the crops. This excessive fencing is rapidly going out of use by the increased expense of fencing material, and the higher prices of labor, as well as by our modes of improved agriculture in the use of farm machinery and labor-saving implements, so rapidly coming into practice. Still, fences we must have, and excessive fencing too; for, in our land of "liberty and equality," an agricultural community of a thousand substantial farmers, who keep all their small stock secure within their own premises, must spend an extra thousand dollars apiece in fencing against the pigs and geese of a dozen Irishmen, scattered about in their shanties, who own not a foot of land nor pay any taxes, yet maintain the prescriptive *right* to pasture their stock in the highway, against which the *real* land owners must, perforce, secure themselves at their own expense!

Our stony districts provide easily against such marauding, because the material they use, of necessity, makes a tight fence, but not so with others, who have to resort to wood for that object. With them is fast arising the serious question of what they are in future to rely upon as their best, cheapest, and most available, as well as desirable fencing material. The question of hedges has long been discussed in our agricultural papers, and it is asked, why not adopt thorn hedges in America as well as in England? The ready answer to this is, that our frosts are too deep in winter, and our droughts too severe in summer for their successful growth and standing in the soil. In England the summers are moist and cool, with no protracted drouths; the banks supporting them stand firmly, as the frosts do not heave and crumble them down into the ditches as they do here, thus giving them a free and succulent growth in summer, and a firm footing in winter, while here, cultivated in the same manner, the banks crumble from the winter frosts, and if planted on the level ground they do not thrive. Theoretically, this statement has been strongly combatted, many experiments and trials in thorn hedging have been made within the past fifty years, and the result is, after protracted labors and great expense, that scarcely a mile of secure thorn hedge can be found in all our Northern States. Besides this, wood fencing has been so comparatively cheap that our farmers have managed in some way or other to get along thus far, but with an enormous outlay in first building, and afterwards in a great annual outlay in their repairs, which they have not yet, or until of late, seriously considered.

There must, ere long, be a remedy for this; and that partially in the fewer subdivisions of interior fences on our farms, and in the use of a better material more cheaply furnished than formerly. In the first of these reforms, England is rapidly giving us a profitable example, in demolishing thousands of miles of their ancient hedges, in opening their small fields into larger ones, and the substitution of iron, so cheaply and abundant there when new enclosures are required. The *iron* we have not yet arrived at. It is too costly; but in the abundance of our ore beds, and the cheaper manner in which we are making it, it will no doubt within the time of another generation be widely used for fencing purposes. But that is not *now*. We need something to supply our *present* wants. Since the opening of our great western prairies to cultivation, the public mind in that quarter has been actively awake to the practicability of the Osage Orange as a material for hedging. Millions of plants have been propagated for the purpose, and hundreds, perhaps thousands, of miles have been planted in fence within the last five years. Those adopting it, are hopeful of success—we trust with certainty—but the result has not yet been ascertained. The Osage Orange is a rapid growing plant, making long upright shoots through the summer; but the winter frosts have cut them down almost to the ground in the winter, even as far south as Lower Illinois, in latitude 39° as effectually as in 43° north. The next ten years to come will probably settle the question one way or the other. The common varieties of the American thorn, we consider altogether doubtful for hedging purposes, although hardy as when applied to thick hedging it mildews and does not appear to thrive; at all events, the trials made with it have not been generally successful.

These reflections lead us to the inquiry of what are to be our reliable fencing materials for the future in the absence of stone? We frankly answer—we do not positively know. Lumber of different kinds is yet abundant in wide districts of our country, and may continue to be for generations to come, as much waste land exists where the soil cannot be devoted to better purposes than growing it. Such districts, of course, are provided for. Yet we have still more extensive agricultural districts, where the soil is nearly all equally well adapted to cultivation, and the balance equally available by slight ditching and drainage; and in these the question recurs with great force, and we do not know that we can at present suggest any better practice than to enact laws preventing the running at large of all animals on the highways, making fewer subdivisions of fields and adopting the cheapest effective enclosures of lumber. Iron wire may come in as a part of the material in such cases, and the use of a light cheap wood-work may effect the rest.

There have been various "patent" inventions of fence, some of which may be worth trial, others of which are worthless from their want of efficiency, and the great expense attending them. But the properly securing of our fields is not yet desperate. Stringent laws, restraining the running at large of cattle, sheep, pigs and geese, can easily be enacted by our legislatures, and they should be in spite of the opposition of malcontents. Our farmers—and they are the great body of our producing classes—have it in their power to protect themselves against outside marauders, and if they neglect this the fault is their own. With the other objects they must contend as best they may, outside the stony districts, and in these we can do no better than to recommend them to clear their fields of these obstructions and convert them into the best kind of walls. We shall recur, on future occasions, to this subject again.—[Ed.

AGRICULTURAL JOURNALS FOR PREMIUMS.

The annual meetings of our County and State Agricultural Societies are usually held at this season of the year, and arrangements are made for the exhibition next Fall. These societies are accomplishing great good by these exhibitions, and their annual reports and addresses. We think, however, there is hardly prominence enough given in the premium list to *principles*. You shall find ten premiums offered for good butter, cheese or bread, where you find one for an essay upon the principles that underlie dairy management, grain growing, stock raising, and kindred pursuits.

The mass of our population not only want to see the best samples of their own industry, but a more thorough acquaintance with the science of husbandry. Our agricultural societies should give this more prominence. We all learn something at the fairs worth knowing, but they should be followed up with a little more didactic teaching to secure their best results. If we would add to the fair the distribution of agricultural and horticultural journals, in the place of a part of the money premiums, we think it would be an important step in advance towards the realization of the aims of these societies. It is no part of the object of these associations to enrich their members directly by pecuniary rewards for their products. At best they are but a slight compensation for the time and trouble required by the exhibition. They compensate the exhibitors directly by giving them valuable information, inciting them to improvement in their stock, and in their methods of cultivation. A few dollars then, more or less, in the premium list, would not probably make any very material difference in the extent of the exhibition, or in the sharpness of the competition for premiums.

With the more intelligent patrons of the fair, the journal premiums would probably be an additional attraction. If they already take and read one good agricultural paper, it has taught them the economy of the outlay, and sharpened their appetite for more.

The only objection to taking more is the money outlay, an objection that would be remedied if they could pay for them by successful competition at the fair. Many a farmer would be glad to double his supply of papers, if he could do it in this way. A man who takes one paper is much more likely to take two or three more, than that man who never reads a paper is to begin to take one. It would be acceptable to this class, and would be fulfilling the mission of agricultural societies to distribute these journals more largely among them.

But there is another class in the community, and, if we mistake not, it is still in the majority, though yearly diminishing, which demands the special attention of these societies. We refer to those who read little or nothing, and do not believe what they do read, mainly for the reason that it is 'printed." These farmers are carried along in a course of improvement, if they improve at all, by the force of example. A thriving neighbor, who reads and thinks, stirs them up by his new crops, tools and fertilizers. But they are for the most part sluggish, because they do not think and read for themselves. They will not subscribe for a paper, because they do not believe in book-farming. They would be ashamed to pay money for a paper, but would not object to receive it as a premium on some of their articles exhibited at the fair. Nobody could then charge them with fooling away their money for nonsense. There are many such cultivators in the land, and the most hopeful means of reaching them, and converting them to the true faith in husbandry, is to distribute a portion of our premiums at the fairs in agricultural journals.

Gentlemen of intelligence, who are usually associated in the management of these societies, should feel a sort of responsibility for the whole body of cultivators which they represent. They may be enlightened, their prejudices softened, and their labors be made far more productive by the diffusion of knowledge among them. It is estimated that in some counties of Massachusetts, agricultural societies and journals have added twenty-five per cent. to the value of their productions within the past five years. The fountains of knowledge are full. They only need a wise direction to fill the land with intelligence, thrift and plenty.

We throw out these suggestions now, while these societies are holding their annual meetings and laying out their plans for another year, what better work can they do for their brethren who fail to prosper by their calling, than to put these journals within their reach, and make them an object of competition? Circulate the documents, and let there be light in every corner of the farm. We are not speaking for ourselves. There are many good agricultural journals, and were there not, our belief is that any cultivator will be decidedly benefitted by reading even the poorest one printed in the country.—[Ed.

Among the advertisements in a late London paper, we read that "Two sisters *want washing*."

MANURES—CHAPTER I.

This is a subject always in order, but we intend to make it a "special order," for a few months at least. We are considered a little 'heterodox' on the subject of manures by some of our cotemporaries. One thinks we *reason* wrongly. Another suspects we are aiming to be on the popular side of the question among *farmers*. Another calls us radical; and a fourth, not long since, pronounced us an "old fogie." The last was Mr. Greeley, but we forgive him, as he has since taken back at least two-thirds of the charge. In the series of articles, of which this is the first, we shall set forth our opinion of the true philosophy of manures, with the appropriate practice, and give the reasons for the faith that is in us. We write, however, not to vindicate our own personal views—a matter of small account to the world in general—but with the hope of inculcating right notions among the readers of the Agriculturist at least.

Our present views are very different from those we held some years since. When we first turned our attention from simple practice and observation to theorizing upon the means of increasing the growth of plants, we were struck with the beauty, simplicity and apparent truthfulness of the chemical theory, which may be stated thus:

All plants are composed of two classes of elements,—the *organic* and the *inorganic*, or mineral, and these elements are all essential, and always exist in the same relative proportion in the same species of plants. For example: 100 pounds of dry wheat was stated to consist of, say 2 pounds of inorganic matter, (which would be left in the form of ashes when the wheat should be burned,) and of 98 pounds of organic or gaseous matter, which escapes into the air during decay or burning.

Now the organic part is made up of the same elements as are found in water, air, and a certain gas (carbonic acid) which is always found in the air; and as these substances are always present around the plant, it was supposed that all that was necessary to be looked after in manuring a plant, was to see that its roots could find the necessary *mineral* elements to supply the 2 pounds of ashes.

Agricultural chemists turned their attention to discover what these ashes consisted of. They found, at first, an *apparent* uniformity in the composition of the ashes of the same plant; thus, for example, it was set down that 1,000 ounces of the ashes of wheat and turnips were made up as follows:

	1,000 *pounds of Wheat Ashes were supposed to contain*	1,000 *pounds of Turnip Ashes were supposed to contain*
Of Mineral Phosphates	500 ounces.	67 ounces.
Of Potash	250 ounces,	400 ounces,
Of Magnesia	120 ounces,	50 ounces,
Of Soda	83 ounces,	108 ounces,
Of Lime	25 ounces,	125 ounces,
Of Silica	12 ounces,	70 ounces,
Of Iron	7 ounces,	10 ounces,
Of Sulphuric Acid	3 ounces,	130 ounces,
Of Chlorine		40 ounces,
	1,000 ounces.	1,000 ounces.

Now *if* those mineral substances (the phosphates, potash, lime, &c.) are always found in the ashes of wheat and turnips, and *if* they are essential to the constitution of these plants, and if the above table or any similar one which could be constructed, would show what *proportion* of each of these mineral substances is necessary to the formation or growth of these plants, then the process of manuring would be reduced to simply ascertaining whether any particular soil contained all these essential elements in due quantity and proportion, and then to apply to the soil the deficient mineral substances, should there be any.

As before stated, this theory appeared simple and plausible, and acting upon a belief in its truthfulness, Liebig and others first commenced a series of analysis of the ashes of different plants to ascertain the composition; and next the analysis of soils, to find what was wanting in their composition. In order to meet with certainty the necessities of a particular crop, in a soil which had not been analysed, specific manures were planned for each of the more generally cultivated crops. Thus, taking the above table as a guide, to furnish the mineral supplies for *ten* bushels of wheat, all that would be necessary would be to supply the roots (or soil) with, say 6 pounds of phosphates, 3 pounds potash, 1¼ pounds magnesia, 1 pound soda, one-third pound lime, one-sixth pound silica, with a little iron and sulphuric acid. Specific manures of this character were actually made up by Liebig himself, patented in England and on the Continent, and extensively sold.

It is needless to say that they failed in *practice*; but the *theory* is still held forth by many. It is this same theory which gives currency to the present belief in the efficacy of the artificial fertilizers, now so abundantly manufactured and sold to farmers—to the benefit *mainly* of the manufacturers themselves. Though we desire to take up at once what we believe to be the true theory of manuring, and go into the practical details, we must ask our readers to wait for the *practical* part of this discussion, for a number or two, or until we have set forth some of the objections to the above theory, which lies at the bottom of so much of the present "scientific" agriculture.

We confess to having been carried away with the views of Liebig when we first began to look into this subject, and we accordingly quit all other pursuits and went into the laboratory, with the best teachers of analytical chemistry we could find, and after a preliminary course of study and practice, we commenced the analysis of plants, soils, and manures, and expended much time and money in the enterprise. We give now only the results of a long series of experiments and much thought upon this subject.

1st. There is no certainty that any considerable number of mineral elements are essential constituents or component parts of plants. Were they *essential*, we should find a far greater uniformity in the results of analyses. Those who will take the trouble to examine the matter carefully, will find that scarcely any two reliable chemists give the same relative proportion of mineral elements in different specimens of the same plant. It was during an attempt to construct a table of the average composi-

tion of several staple crops, as ascertained by different analysists, that we were first led to question the then current theory.

Again, the imperfections, the uncertainty of the results arrived at in chemical analyses, while they may be construed to account for the diversity in the results, are also against strong reliance being placed upon them.

Much stress has been laid upon the large amount of phosphates in the cereals or grains. But until the very recent discovery of "the molybdate of ammonia process" of determining phosphoricacid ,and even since, we ask, what good chemist was ever entirely satisfied that he had determined accurately the amount of phosphoric acid either in a soil or in the ashes of a plant? We have conversed with many *good* chemists in reference to phosphoric acid determinations, and they have ever expressed a distrust of the accuracy of their results. We incline to the opinion that improved methods of analysis will show that the actual amount of phosphoric acid in the ashes of grains has uniformly been stated much too high. But, allowing even that it has been given too low, the question may still be asked,is a greater or less amount, or any amount at all of phosphoric acid really *necessary* to the constitution of the cereal plants?

That phosphoric acid is usually found in considerable quantities in the ashes of grains, is not absolute proof of its *necesstiy* there, any more than is the fact that salt is found in the ashes of sailors' garments a proof that salt is an essential constituent of such garments. All growing plants require a large amount of sap. This sap is taken in from the soil through the roots, and ascends into the pores or vessels. Much of it goes off into the air by evaporation from the leaves. This sap, as it is taken from the soil, holds dissolved in it various mineral substances, such as potash, phosphoric acid, and whatever else is soluble. Well-water is a fair representative of the sap of plants, as it is drawn in at the roots, and almost all well-water contains the same mineral substances as are found in the ashes of plants.

Some assert that the plant is endowed with the power of selecting from the soil such elements as it constitutionally requires; but this is unsubstantiated assertion. Madder and other coloring matters, common salt, the poisonous minerals, such as arsenic, &c., when placed around the roots are absorbed with the sap. No inherent power of selection enables the plant to keep them excluded. When the sap ascends, carrying these mineral elements along with it, and is evaporated from the leaves, the mineral elements, potash, soda, &c., are left behind, and are there found by the chemist, not necessarily as *essential* constituents, but as bodies *accidentally present.*

One end of a towel dipping into a basin of salt water will absorb, or suck up, a large amount of salt. Let the towel dry, burn it, and much salt will be found in the ashes. But no one would say that the salt is an essential constituent of the towel. The plant, whether green or dry when cut down for analysis, will contain a portion of sap, and this sap will invariably contain more or less mineral matter, all of which will be found in the ashes on analysis. What chemist is prepared to say that *so much* is essential to the existence of the plant, and *so much* is accidentally there, or that the whole is not accidentally present? We do not say that silica, and some other minerals may not be useful or necessary, but we do say that any system of manuring founded upon any definite knowledge on these points is still greatly defective, if not useless.

It is urged that the same plant growing in soils of different composition will contain greater portions of particular elements. This is granted, but is easily accounted for on the supposition that the sap is changed in the plant, and has less capacity to carry particular elements back to the earth again. Thus, for example, a plant growing in a soil containing lime and soda would take up both in solution, but the quantity of sap is reduced in the plant, and it consequently will carry back to the earth a less proportion of the difficultly soluble lime, than of the easily soluble soda. In this case there would be found a preponderance of lime over soda if the ashes were analysed.

In the same manner we may explain why some plants growing in salt-water actually retain within them more potash than soda. Perhaps the relative size or weight of the atoms may have something to do with it. The weight of an atom or equivalent of potash is to that of an atom of soda as 47 to 31. Perhaps on account of their smaller atomic size the soda atoms are carried out at the roots more readily, and hence the chemist will find more potash than soda in the ashes, though a thousand times more soda than potash may have circulated through the pores. We suspect this cause, and others connected with the particular organization or structure of various plants, may have much to do with the comparative amounts of the mineral elements found in their ashes by analyses.

We do not lay these statements down as ascertained facts, but as plausible theories those received for a long time as orthodox. to account for phenomena, to be set against To our mind there is comparatively little yet settled as to what are *essential* mineral elements in plants.

It will readily be seen, then, that with the above view of the subject, we place little reliance upon the theory of special fertilizers for particular crops, so far as yet understood by the most skillful chemists.

So, also, the analysis of soils, with reference to ascertaining *what* particular missing elements can be added to meet the wants of particular crops, can be of no utility—to say nothing of the imperfect knowledge of chemistry yet prevailing. We may remark, while on these topics, that the strongest advocates of the utility of soil analyses are those who have had least to do *practically* with such investigations.—Ed.

(To be Continued.)

If you wish to preserve fine teeth, always clean them thoroughly after you have eaten your last meal at night.

BEE HIVES.

DETAILED DESCRIPTION OF A CHEAP, BUT EXCELLENT HIVE.

Whatever may be said of the advantages or disadvantages of this or that one of the hundred patent hives, more or less, it is quite certain that many of the most successful honey growers succeeded with but very simple hives. We have heretofore alluded to Mr. Quinby's success, and stated that he used only the simplest cheapest hives. At our request, he has furnished the following very plain description of the hives used by him. They are cheap, and easily constructed by any one, and no "patent" will be infringed by any one who chooses to follow the plan given below. We are glad Mr. Quinby has detailed so minutely every part of the construction, even at the risk of being thought tedious or prolix. We desire just such chapters of particulars on a thousand topics. Let every one describing an implement or process keep in view every possible question that would be asked by a novice who should attempt to follow his directions, and try to meet all such questions, and even then, in nine cases out of ten, he will make himself none too plain.—[Ed.

To the Editor of the American Agriculturist:

Since you gave publicity to the circumstance of my having sold over twenty thousand pounds of honey the past season, I have been beset with letters inquiring into my system of management, and more particularly as to "*what kind of hive I use,*" this being considered by most people an all-important talisman of success. Perhaps, in accordance with your suggestion, a description of my hives would interest the readers of the Agriculturist as much as anything I could say with reference to bees at this season.

First then, it may be understood that my large supply of honey was obtained by a very simple process, as far as the hive is concerned. But the results were not reached by merely putting bees into simple hives, any more than a good crop of corn is realized by simply planting the seed without further attention. Yet several considerations do make the kind of hive important. We wish to bring about certain results; what the means are, I propose to say, appealing to the results before mentioned for authority to say it.

When the *profit* of bee culture is the only object, of course the cheapest route to reach that point will be adopted. If with a hive costing twenty-five cents, we secure the same results as with one costing five dollars, we save just the difference. If any one desires ornamental hives to correspond with his establishment in other respects, that is another, and there can be no objection, of course, but the extra expense should not be charged to the bees as a necessary outlay. With these preliminary remarks, I will proceed to describe a hive in its simplest form, but one which will give every facility for obtaining the purest honey to be had, in any style.

First. The general form of the hive is a wooden box, the internal size being say twelve inches square and fourteen inches high, made of sound boards an inch in thickness, and unplaned either within or on the outside, except at the edges, to make close joints. To construct it, cut boards fourteen inches long, two of them twelve inches wide, and two fourteen inches wide. These nailed together at the edges, the wider ones being put over the edges of the other two, will make the inside size as above, viz.: twelve inches

square and fourteen inches high, and the hive will contain a little over two thousand cubic inches.

The size is important. There should be room for brood and for storing a winter supply of honey in *one apartment*. If too small, an insufficient supply of food will be stored; if too large, more honey than is necessary will be stored in the hive, when it ought to be in boxes above for profit.

I stated that the size should be about two thousand cubic inches, but I would vary the size with the latitude. Say south of 40 degrees, where the winter is comparatively short, a less size will do, as a less quantity of honey for food will be required. But here another point must be kept in view: there *must* be room for all the brood combs needed by the queen, otherwise the stocks will run down for want of new recruits. From several experiments to ascertain this point, eighteen hundred inches is indicated as all the room necessary for *that* purpose. Perhaps the last size would be the proper one for profit any where south of the latitude of 40 degrees, and in no case would less than one cubic foot (1728 inches) be advisable.

For the top, take a board fifteen inches square, which would allow it to project half an inch over each side of the hive. Plane only the upper side. Around the edges of the planed side, rabbet out the corners half an inch deep, and an inch inward, so that another box a little larger than the main hive can be set over it and fit into the rabbeted edge of the cover. Through the cover make two rows of holes, say about three inches each side of a line drawn through its centre. These holes should be made uniformly distant, because it is necessary to have a rule to go by in making glass boxes to fit over them. A pattern to make the holes by is very convenient. The cover can now be nailed on.

Make a small opening for the passage of the bees in the front side of the hive, either at the bottom, or part way up; or, what is better, in both places. These will be sufficient for ventilation, except in hot weather, when the front side of hives containing full stocks should be raised half an inch or so to admit air Put sticks across the inside to support the comb,* close the holes in the top, and this part of the hive is ready for the bees.

The honey to be removed from the bees is stored by them in glass boxes set upon the top of the hive. There may be two or four of these, the number depending upon the size desired, and they can be 6 inches, and 6¼ or 12½ inches long. The top and bottom is made of wood and the sides of glass. For the wood, take thin boards and plane down to one-fourth of an inch, cut of the proper length and width, and make holes in the bottom piece to correspond with the holes in the top of the hive. The posts or corner-pieces are five inches long, and say five-eighths of an inch square. In two adjacent sides of each piece make a narrow groove or channel, one-fourth of an inch deep, for glass to fit in. Fasten these upright pieces upon each corner of the bottom by nailing through into the end. The glass sides, previously cut of the proper size, are then slipped down into the grooves. Next stick fast to the top piece some pieces of new white comb, an inch square, as a beginning for the bees—one edge dipped in melted wax and applied before cooling will hold these bits of comb fast. Then put this top piece on, fastening it to the top of the upright posts of the corner with small nails. The boxes can be set away until wanted for use. The glass sides may be cut from common window panes. From the size above indicated, that is 5 inches high, and 6 or 12 inches long, panes 10 by 12 inches cut up without waste. The small upright corner pieces may be worked out in long strips, and then cut up to the required length. A thin grooving plane, or a saw, will cut the grooves for the glass readily.

A covering over the glass boxes is necessary. This is to be made of boards, say 7 inches deep, and exactly 13 inches square on the inside, so as to fit down upon the rabbeted edge of the cover to the main hive, and shut out all light. Bees will work in such boxes without the rabbeting around the edge of the top, but unless there is a close joint to shut out light, the glass and combs do not appear so clean as when it is perfectly dark.

I have thus given a full description of all that is really needfull in a bee-hive. But those who wish can have the outside planed and painted, and add moldings, dentals, and any amount of ornaments; as long as the principle is observed it will not interfere with the prosperity of the bees. Even an excess of ornament would be attended with less expense than most patent hives not half as good. There is not the least necessity of the simple hive costing over 25 cents, the cover to the boxes 12½ cents, stand 6 cents, roof 6 cents, or all complete for 50 cents. The glass boxes would cost the same for any hive, and are not reckoned.

The stands for the hives to rest upon, and the roofing, are yet to be described. The stand is made of inch boards, 15 inches wide by 2 feet long, the ends nailed on pieces of wood or joist from two to four inches square, and put directly on the ground, with the hive on the back end. The advantages of this arrangement are sufficient to balance any little trouble of keeping down weeds, grass, &c. The roof is made by two boards, 18 by 24 inches, nailed together like a house-roof, and laid on the top loosely. One great advantage of separate stands is, there is no difficulty in allowing plenty of room between stocks, which is an important consideration.

M. Quinby, Author of
"Mysteries of Bee-keeping Explained."
St. Johnsville, N., Y.

* In the text, Mr. Quinby does not describe the manner of placing the sticks, but from his work on bees, we gather that he puts one horizontal stick, half an inch in diameter each way, through the centre of the hive.—Ed.

CURE FOR FISTULA AND POLL EVIL.

A subscriber in Dutchess county, who gives his name, but prefers we should suppress it, as he is more anxious to benefit that noble animal, the horse, than to get into notoriety himself, says he paid three dollars for the following recipe, and is well satisfied with the investment, as it is, in his opinion, a *sure* cure for fistula and poll evil. As he does not know that any one has any peculiar right to sell the recipe, he offers it free to the readers of the *American Agriculturist*.

To Cure Fistula and Poll Evil.—Make two sticks smooth, about the size of a common pipe-stem; let one be bluntly pointed, to be used as a probe. Break from a stick of nitrate of silver (lunar caustic) a piece half an inch long; take a strip of writing paper, roll it twice round the caustic, letting it come far enough on to tie firmly with a bit of thread or silk, and projecting past one end of the caustic a little, to form a tube or socket. With the probe find the orifice, and probe it to the bottom; enter the other stick into the paper tube, withdraw the probe, and following the orifice, crowding the caustic to the bottom; this will need to be repeated three or four times, at intervals of about a week. The horse should not be used during the time; and if he is fed something for the benefit of his blood, all the better. This may be relied on as a thorough and effectual remedy. A Subscriber.

MANURE MARLS OF NEW-JERSEY.

Every one acquainted with the progress of farming in Eastern New-Jersey, especially in Monmouth County, during a few years past, is familiar with the immense advantage derived from the use of the *green sand marl*. Whether the peculiar value of these marls depends upon the organic remains, or otherwise, we do not propose to discuss here. One thing is certain, that by its liberal application, whole farms have been raised from an almost worthless condition to the production of large and highly remunerative crops. We recently visited a farm which ten years ago was purchased for some $6 an acre, but which is now valued at over $100 per acre, and even pays a higher per centage on the latter price. The change has been chiefly brought about through the application of green sand marl, dug from beneath its own surface.

The geological survey of the State is developing still further the extent and value of these extensive beds of natural fertilizers. The query arises: can not this green sand marl, which exists in such unlimited quantities, be transported to neighboring sections of the country, at so low a rate as to be a cheap fertilizer? We learn that one company has already been formed with this design. Are there not a number of large beds near landing places upon the coast, which could be profitably opened, and the marl be carried in boats to the bays and inlets of Long-Island, as well as up the Hudson River, and also to the whole of the north side of Long-Island Sound?

We think this subject worthy the attention not only of capitalists, but of farmers and others interested in the culture of the soil. We have no sufficient data for answering this question satisfactorily; but if we may judge from the results already obtained by the use of this fertilizer at home, it is not entirely impossible that New-Jersey may yet contribute more valuable aid to the Agricultural resources of this part of the country, than has yet been derived from the far off islands of Peru.—Ed.

MINCE PIES WITHOUT APPLES.

To the Editor of the American Agriculturist:

Many will be deprived of their favorite mince-pies this season by reason of the scarcity of apples. In order to find a substitute, I have had some pies made by substituting for the apples, crackers and tartaric acid, as in making the cracker pies, and find it to answer the purpose admirably, so that few can tell the difference. H. A. Sheldon.

Middlebury, Vt., Dec. 15, 1856.

When molasses is used in cooking, it is a very great improvement to boil and skim it before use. This takes out the unpleasant raw taste, and makes it almost as good as sugar. When molasses is used much for cooking, it is well to prepare one or two gallons at a time.

THE CHINESE SUGAR CANE.

DISTRIBUTION OF SEED, ETC.

A telegraphic dispatch from Washington this morning (December 26) states that:

The Commissioner of Patents is now sending to the State Agricultural Societies a parcel of Chinese sugar cane seed, raised under the direct supervision of the Patent Office, sufficient to plant sixteen acres, with a view of extending the culture of this plant. It has, since its introduction into this country, proved itself well adapted to our geographical range of Indian corn. It is of easy culture, being similar to that of maize or broom corn, but will prosper in a much poorer soil. A correspondent, writing to the Commissioner, speaks of the extraordinary richness and delicious flavor of the milk of cows which had been fed on that description of food

One sentence in the above is ambiguous; is there to be only seed enough distributed to plant sixteen acres in all? or is there to be that quantity sent to *each* society? If the former be the case, we are rather ahead of Uncle Sam in this enterprise, as we were first in the field, and we shall distribute FREE among our subscribers alone, enough to plant more than *one hundred acres*. We suppose, however, the Commissioner will be able to furnish at least enough for sixteen acres to each State, and we are glad that this is the case. We wish to see a thorough and general trial made of this plant, without any such impositions upon farmers as have been practised by the introducers of some *new* things in years past.

Although we have really high *hopes* of the Chinese sugar cane, we frankly confess that we are not so confident in our opinion, as to recommend our readers to enter *largely* into its culture *before* the results of another year are known. We have on our desk some samples of syrup made from the plant in Georgia, and also on Long Island, N. Y. That made on Long Island has been pronounced by many persons who have tasted it, as fully equal to maple molasses, and yet it was manufactured by those knowing little or nothing of sugar-making. The juice was pressed from the stalks with two rude wooden rollers, and then boiled down in a brass kettle; the large quantity obtained is quite surprising. Our own experiments have been already briefly described. Mr. Peters, of Atlanta, Georgia, who experimented so largely, wrote us recently that we could not say too much in its favor. Many others in different parts of the country tell us the same story. Several persons say that cattle, and especially swine, eat the plant at all stages of growth with great eagerness. We kept our own plants for seed, and to give away as specimens of the stalks, and did not try them for feeding.

On the contrary, however, a few intelligent persons assure us that *their* cattle would not eat the *stalks* at any stage of growth, though the leaves have been greedily devoured. If only the leaves will be eaten, the plant will not be so valuable for fodder. We trust there is some mistake on this point with those who have not found it relished by cattle, as their experience has been different from that of many others.

Everything considered, we advise all who can to try a small plot next season, even as far north as Canada East. A few square rods, planted at the same time, and cultivated like corn, will involve very little expense. It will be an interesting experiment, at least, and will furnish abundant seed for another season, should it be wanted.

We have already secured a large amount of seed, and are getting new supplies. Two packages are on the way from Europe, which we shall receive this month, if they meet with no accident. We can certainly distribute some two hundred seeds (FREE) to all subscribers to the Agriculturist who desire it, and who will furnish a stamped and directed envelop to send it in; and perhaps we can increase the amount to three or four hundred seeds.

TIME OF DISTRIBUTION.

We intended to send the seed out early in January, but it will take considerable time and extra labor to put up all the parcels now applied for; and as we are waiting to make the amount as large as possible, it may be six or eight weeks before we get through with the entire distribution. Those expecting seed, and not receiving it before, say the end of February, may conclude there has been some miscarriage by mail, and they will then please write us again, as we shall keep some extra parcels for such cases.—ED.

HOW TO GET CHEAP TURNIPS.

Turnips are coming more and more into use among us for feeding stock, and it becomes a question how to produce them at the least cost. Even the white fleshed field turnips are valuable for feeding in early winter, and a good stock of them judiciously fed, tells a good story either in the milk pail or the beef barrel.

We tried an experiment with the cow-horn turnip, as a second crop after corn, the past summer. The corn consisted of about one acre, had been manured with fish applied to the growing crop in June, and yielded about sixty bushels to the acre. The soil was in good heart, but not highly manured. The seed was sown at the last hoeing, early in August. As the ground was shaded by the corn the turnip seed came up well, and the young plants made good progress even in dry weather. About the middle of September the corn was cut up by the roots and put in shocks. The turnips having the full advantage of the sun came on rapidly, and by the middle of October had made roots two or three inches in diameter and a foot in length. We thinned out the field, taking off about fifty bushels, and had a final gathering the last of November of over fifty bushels more. The whole expense of raising these roots was the harvesting, which we estimate at four dollars.

Turnips at four cents a bushel are a cheap fodder. The seed sowing was trusted to an inexperienced hand, or the yield would have been much larger. Full one third of the field was vacant. We think this the cheapest method of raising turnips, and purpose to follow it up until we find a better.—[ED.

Have important papers all together, where you can lay your hands upon them at once in case of fire.

HAMS—PICKLE OR BRINE FOR.

We have made several inquiries for the best pickle for hams. The following two have been long used, and so far as we can learn have given very good satisfaction. The first is called the

KNICKERBOCKER PICKLE.

6 gallons of water,
9 pounds salt, coarse and fine,
3 pounds brown sugar,
3 ounces saltpetre,
1 ounce pearlash,
1 quart molasses.

Boil the whole together and skim.

After the hams are taken out in cutting up the hog, rub them over with fine salt, when they may lay a day or two in cold weather, if more convenient. Then pack them closely in a barrel or cask, and fill with the brine which may be used hot or cold, taking care to keep the hams entirely covered with it.

PICKLE No. 2.—A Long Island farmer of our acquaintance, who kills a large number of hogs, and whose hams are highly prized by epicures in this city, uses the following pickle:

8 gallons of water,
12 pounds of salt, coarse and fine,
3 pounds of brown sugar,
4 ounces of saltpetre,
1½ ounces of pearlash,
1 quart of molasses.

We like the addition of the pearlash. Soda would do just as well we suppose, as the presence of a free alkali will neutralize any acidity, (souring.) The second pickle is to be used in the same manner as the first. The hams are usually left in either of the above pickles for about *four* weeks before removing to the smoke-house.—ED.

POOR EGGS.

There is considerable complaint at this season, and will doubtless be still more a few weeks later, of the poor quality of eggs which have been preserved in lime or pickled. A housekeeper lays her complaint before us, and says that she paid four shillings for sixteen eggs, and only nine of them proved to be sound. We cannot help her out of the difficulty, further than to tell her and others that is a very easy matter to test the goodness of eggs. Take them to a moderately dark place, and hold them between the eye and a candle or lamp. If the egg is good—that is, if the albumen is still unaffected—the light will shine through with a reddish glow, while if the egg is affected, it will be opaque or dark. A few trials will show any one the ease and simplicity of this method. In Fulton and Washington markets a man may be seen testing eggs at almost any time of the year. He has a tallow candle placed under a counter or desk, and taking up the eggs, three in each hand, passes them rapidly before the candle, and deposits them in another box. His practiced eye quickly perceives the least want of clearness in the eggs, and suspicious ones are re-examined and thrown away, or passed to a "doubtful" box. The process is so rapid, that we have seen eggs inspected perfectly at the rate of one to two hundred per minute, or as fast as they could be shifted from one box to another, six at a time.—[ED

WORK FOR STORMY DAYS.

These days will come at this season of the vear, terrible snow storms, beating rains, and fierce winds, in which no work can be done comfortably in the field or forest. The cattle are all housed and fed, the tools are all in order for the spring work, and the annual supply of fuel is prepared. What next?

Most farmers ought to read and think far more than they do, and introduce system into all their operations. Head work, then, is the business for these stormy days in winter. If you have the back volumes of a good agricultural journal you will find genial assistance and company in this head work. First lay your plans, what fields shall be planted with given crops, what seed and what manures for each, what shall be subsoiled, and what under-drained, &c. Having done this, search the volumes to find what has been written upon these topics. Reading with an object in view is far more profitable than reading for amusement. This will fasten principles in the farmer's mind, and make him intelligent in his business. He is like a lawyer consulting his volume of reports to ascertain what principles of law have been determined in the decisions that have been given. He consults his book of cases with some case of his own on hand, and reads with deep interest every case that has any bearing upon his own.

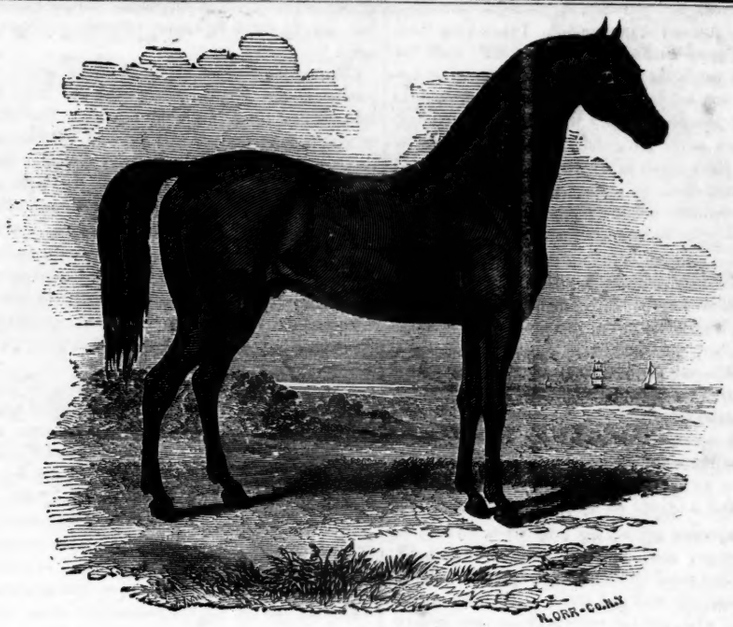
The farmer has always cases on hand—principles not yet fully determined. Now is the time to read up and resolve doubts, to ascertain the best method of performing every piece of work to be done next summer. For ourselves, we have no greater luxury in these cheerless days than to get down the back volumes of these journals and see what our brethren of the plow have been doing these past 10 or 15 years. These books of farm cases will be profitable just as we read them up and master them. Such reading makes the practical farmer skillful in his business.—[Ed.

SINK DRAINS IN WINTER.

Every wise cultivator knows what to do with soap suds that run from the sink-spout in summer. The growing crops need no herald to proclaim the secret of their luxuriant foliage. But what shall be done with the water when the crops are gathered, and the tub for collecting it is turned up for the season? If your sink drain enters into a manure vault that is enough. But there are thousands who have not yet waked up to that institution.

Rather than let the water run to waste upon the surface, dig a large hole and put in a cord or two of muck. This will catch the water, and the whole mass will become saturated by spring, a good article for the compost heap or to spread directly upon the garden and spade in. Try this for a single winter and mark the result in the summer crops, and you will no more suffer this waste upon your premises.—[Ed.

The man without ideas has generally a great idea of himself.



BLACK HAWK.

Foaled in 1833, the property of Wingate Twombly, Greenland, N. H. Sire, Sherman; grandsire, Justin Morgan. Dam raised in New-Brunswick, a half-blood English mare. Black Hawk is now owned by David Hill, Esq., of Bridgeport, Vt.

We love to look at and study a well formed animal of any kind, and especially a horse. Next to the living animal is a good portrait, and we are glad to present the above well executed picture taken from the Morgan Horse-Book just issued by C. M. Saxton & Co.—[Ed.

IMPROVED KING PHILIP CORN.

This variety of maize has been sent out from the Patent Office for several years past, and is now quite generally disseminated. It originated on Long Island, in Lake Winipisiogee, New Hampshire, on the farm of John Brown. He claims for it early maturity, small stalk, small cob and a large yield of grain. From what we can learn it appears to make good the claims of Mr. Brown.

We cultivated about one-eighth of an acre of it the past summer. The yield was twenty-one bushels of ears, making about eighty bushes to the acre, which was a large product from soil in no better condition. Other producers have reported one hundred bushels and over of shelled corn to the acre. It ripens very early, gives a long good-sized ear, a large kernel and small cob.

We think it a very desirable variety for the northern parts of all the northern tier of States, and for low and wet lands liable to early frosts, still further south. It is of great importance to have corn well ripened. With this variety turnips may be sown at the last hoeing in July, and a good crop be secured. The corn will do to cut up by the 10th of September, leaving the turnips full possession of the land for sixty days before the ground is frozen.

At present we can see but two disadvantages in the cultivation of this variety. The stalk being small is more likely to be broken down by the August winds than the larger kinds, and the ears coming out low on the stalk frequently break off, and fall to the ground, where they are liable to sprout and mold. For deep rich soils and warmer climates, we do not think it any improvement upon some of the old varieties. A farmer, in selecting his seed corn, must study his soil and climate, and procure the variety best suited to his position. The improved King Philip is a very desirable kind for the localities we have indicated.—[Ed.

CRANBERRY CULTURE—EXPERIENCE OF A SUCCESSFUL CULTIVATOR.

Having had an unusually large number of inquiries for information upon the culture of cranberries, we addressed a note to Mr. Bagley, of Usquepaug, R. I., and also forwarded him a couple of the letters sent to us, requesting a plain detailed statement of his experience. Below we give his reply, for which we are much obliged. We only know Mr. B. from having seen a considerable quantity of superior cranberries, of his growth, in the New-York markets:

To the Editor of the American Agriculturist:

In reply to yours of 10th inst., I will give you my experience, hoping it may not only prove benefficial to others, but also elicit further information from them through your columns. It is to be regretted that so little attention is paid to the culture of the cranberry, one of the luxuries by which many farmers might make large profits.

I commenced the culture of the cranberry as an experiment, in a small way, in 1849, on a peat swamp, and finding my experiment successful, in 1851 and '52 extended my operations, and now have about ten acres under good cultivation. My method is as follows: I take off the stumps, roots and moss, to the bottom of the roots, about one foot deep, and carry them on the upland. I then mark out the ground with the corner of the hoe, about two feet each way, and drop, say half a dozen vines, having the roots all one way, in the hoe mark, treading the roots in and covering them with the foot; leaving

the tops just out of the ground. I then keep them clear of grass and weeds with the hoe, until the runners get in the way, which should not be disturbed, but left to root and cover the ground as soon as possible, for they will not bear a full crop until they cover the ground with a thick coat of vines—from three to five years after setting. I keep them clean by pulling up the grass, &c., by hand, until they become matted, after which there is but little to do but gather the fruit.

I flow my meadow about the 1st of December two feet deep, keeping the water on until about the 10th or 15th of May, when I draw it down, leaving a little water under the vines as long as there is any danger of late frosts, then draw it just below the surface, keeping it there until it dries up. There being no stream on my meadow it is flowed by rains. My meadow is ditched, and I find it necessary to keep those ditches open to draw off the water in case of heavy rains in the summer, as water is sure to spoil the blossoms or the fruit if it stands on them when green.

I commence picking my crop when my earliest varieties get ripe, about the 20th of September, and gather them all by hand, as I find the rake injures both the fruit and vines. The fruit will not keep as well, and the vines will not bear as well, if raked.

My first crop of any amount was in 1854, about 40 bushels; in 1855, about 220 bushels; and this year about 350 bushels, which would probably have been 600 or 700 bushels, but for some unfavorable circumstances of the season.

Your correspondent from Otego, inquires if they can be raised from the seed, and how much longer it takes to get a crop. In the fall of 1849 I sowed about 30 square rods of my swamp, (which had been cleared as for setting,) with refuse cranberries, and gave little or no attention to it afterwards. Grass, briars and brush, overrun it, but the cranberries came up and grew. This fall I found the grass nearly all dead, and took a hand with me and picked what berries there were, and cleared it of brush, &c., and next year I shall probably get a good crop from it, as the vines look well. With care I think a crop may be got sooner from the seed than I have obtained them in this instance; but the set vines will be three or four years in advance of the sowed, for they will bear some every year after setting.

The plants which I have set having been collected from the wild bogs in this vicinity, where ever I could get them, consist of many varieties, mostly mixed together, but in some two or three instances I have found whole beds of one variety. One of these is the Bird Cranberry, a very small, rich berry, and the best keeping that I am acquainted with. This berry can now (December) be seen at Messrs. Drew & French's, 85 Barclay street, New York, where it is for sale.

Another variety, which I call the Prolific, was obtained or taken from a place where it was in the water most of the year, and had to grow tall to get out of the water. This peculiarity it still retains in my meadow, growing tall but not spreading as fast as other plants. These two varieties are great bearers. Two other kinds I have obtained by much trouble, but in so small quantities that I have not yet got as many plants as I want to set. These are, first the large black, and the most splendid cranberry that I have ever seen, and the Black Bell, also a very handsome fruit. These I consider the most valuable for market, and they will probably bring the highest price of any ever offered. Of the former, I have never had enough to send to market, and of the latter only two half barrels. The reason why I have not offered plants for sale is, because I have not had any of these two most valuable varieties to spare.*

Cranberries may be set at all times when the ground is not frozen; but I consider June and July the best time, if it is not too dry. The vines or plants may be set and do well without any roots, if set deep in moist soil. I consider pure peat the best soil for cranberries. It is light and porous, and needs no other preparation but clearing up; though it is better to expose the surface to the action of the sun, rains and frosts, one year—this will prevent its baking. But avoid burning it over in a dry time, as that will almost destroy its productive qualities for all plants. Next to peat is pure white sand, on a wet bottom, say six inches thick.

Your correspondent, L. H., wishes to know about the Upland Cranberry. He probably refers to those which grow on the barren hill-tops, and sterile lands around the upper lakes and Canada. The plants I have never seen, but they may be obtained of F. Trowbridge, New Haven, Conn., at what price I do not know. [See advertisement. —Ed.] I have experimented with the common cranberry on upland, but as this article is getting too long for the patience of you or your readers, I will refer you for further particulars of my experience in the culture of the cranberry, to my communication to the American Institute, probably published in their report for 1855, (which, by the by, they promised to send me, but have not done so,) or to another communication in Rev. B. Eastwood's Manual for the cultivation of the Cranberry.

If any further information that I can give, is desired, I will cheerfully answer such calls at all times. E. Bagley.

Usquepaug, R. I. Dec. 15, 1856.

*In answer to our direct questions, Mr. Bagley states that he can furnish the common cultivated varieties (good bearers) for $3 per 1,000; the Bird for $4; the Prolific for $5; and the large Black and Black Bell, when he has them, for $7 per 1,000.—[Ed.

THE JAPAN PEA.

This we have not yet tried, as our first impressions were not greatly in its favor. We first saw them cooked, upon the table of a friend, and were not specially pleased with the flavor. As we have seen them growing, the large spreading branches, the hard woody character of the stalks, which unfit them for feeding, and the small number of peas in the pods, seem to be against their adaptedness to general cultivation. Others are better pleased with them. Mr. Thos. R. Joynes, Jr., of Accomac, Va., writes as follows;

On the 9th of April I planted a row of about 20 yards in length, the seed about three inches apart in the row. They came up very regularly, and for several weeks grew very slowly. But about the last of May, upon the approach of warm weather, they grew very rapidly, and after attaining the hight of about 2½ feet, began to throw out a large number of short downy pods, containing some two and some three peas each—none more than three.

They were gathered about Oct. 1st, and yielded about six quarts of beautiful plump, rich, yellow or cream-colored peas. I think they would have yielded more had they not been sown so thickly. The stalk is hard and woody, and grows perfectly upright, without vine, and but a few short branches. I have not tried the stems as provender, but I doubt if they will prove good, owing to their hard woody nature. The leaves resemble, in general appearance, the ordinary dwarf garden bean, but are more downy and ough.

As to their eating qualities, I can only say, that I have just risen from the table at which I made my first trial of them, and I want nothing better. They make a rich and most excellent dish—inferior to no bean or pea I have ever seen.

We think, on further trial, Mr. Joynes will be less pleased with their eating qualities—at least such has been the experience of most of those who have attempted to use them for culinary purposes.—[Ed.

EXPERIMENTS WITH POUDRETTE.

To the Editor of the American Agriculturist.

In response to thy request for reports of careful, accurate experiments, I forward the following: Last winter, I was led by a finely got up circular, well backed by certificates over signatures of responsible men, to send to New-York city for a barrel of "New and Improved Poudrette." I was not pleased with its first appearance, as there were many lumps, which on breaking with a hammer, proved to be "stone coal;" and also considerable material of a lighter color, resembling fine river mud. There was also a very small amount of coal cinders. I, however, determined to give it a fair trial, and applied it as follows:

Upon a lot of early cabbage, just commenced growing, after being transplanted, I applied a handful to each plant, by removing the earth, and placing it on each side, near the roots, covering it with soil. I selected one plant—about an average—to which I applied none, and placed a stake by it. I soon discovered a little difference in favor of the plant by the stake, which difference continued throughout the season. This was not a fair trial—I should have left more than one plant.

I put in one end of a drill of peas with the seeds—about a handful to eighteen inches. This made no show whatever.

I applied it in the same manner with the seed of early horn carrots. It prevented the seed from coming up quite as well, but I could see no difference in the growth of the roots.

I applied it the same way with the seeds of nasturtium. It burned so as to nearly cause a failure. The part of the row to which I applied, nothing did well. Why should a little night-soil, mixed with coal dust and river mud, burn tender plants, unless the mud was obtained from the margin of salt water?

For Lima beans, I removed the earth one inch deep, and scattered a handful in each hill, and planted the beans on it. To a part of them, I applied nothing. They all came up well, and made a good crop. But I could discover no difference in them at any stage of their growth. These experiments were made on a tolerably good garden soil, with a dressing of stable manure spaded in. Now for the field:

Potatoes.—Planted large tubers cut in half, dropped one piece in a place, about eighteen inches apart, in drills, and put half a handful of poudrette to each piece, in a few rows, and with the balance nothing. By weighing the product of a corresponding number of rows, there was a difference in favor of the poudrette of about one hundred and thirty pounds to the acre. I applied it to a few rows of corn, by putting a handful in each hill, scattered a little, before the corn was dropped. On either side applied nothing. I could never see any difference in the growth of the stalks or ears, or the time of ripening. Did not measure the product. The ground for both the corn and potatoes was manured with cow stable manure plowed in. It was planted with corn the preceding year, manured as above.

I approve of the editorial remarks on agricultural exhibitions in thy last number, and our county exhibitions are fast declining into the same evil practice, insomuch that the sober thoughtful portion of community are withdrawing from them, notwithstanding "Quakers" are found among the managers. AN OLD PLOWBOY.

BUCKS COUNTY, Pa., 12th month, 1856.

A FARMER'S RAINY DAY RAMBLES—NO. II.

To the Editor of the American Agriculturist:

According to invitation I called on neighbor Thomas on another rainy day, and, without further preface, I will relate something about his garden and fruit trees. His fruit garden contains about an acre, the greater part filled with trees. He said he could not afford time nor money to attend to flowers, except rose bushes and flowering shrubs around the house, that required little care. "Instead of these, I line my walks with currants and gooseberries, and those of the best kinds, for I find I cannot afford to raise poor fruit. They very often require more attention with not half the profit. Here I have a small stock of young trees, for, as I said the other day, I like to be independent. They require very little attention; and when a tree decays, or an ornamental shade tree is required, here they are. Any one who has a garden can, by collecting seeds and nuts, or transplanting small trees that we find in the woods and along the fences, raise his own trees either for ornament or use. To those that have no trees to begin with, I advise to go to the nurseries and procure the best. But where they cannot afford the expense, then, I say there is no excuse, for in every part of this country seeds and young trees or cuttings can be obtained of some good kind.

"When I see a man, for a succession of years, live on in a house unadorned by fruit or shade trees, I think something is wrong about him."

In the other part of the garden are pear trees. "I find," said he, "that by manuring liberally, and planting my vegetables between the rows, good crops can be raised of both. We can have a pear orchard in bearing sooner than apples, if we get the early bearing kinds, and everybody must admit they are far better." The trees are about 14 feet apart, and of many different kinds, ripening in succession eight months of the year, and they are more profitable in every sense than apples, either for the desert or cooking purposes. With him, pears are a pretty sure crop every year, while apples often fail of bearing. He finds he can ripen them in the winter, and have as good pears as in autumn. They require to be excluded from light, and the temperature kept as regular as may be. They are put in a dry cellar or room, in boxes or barrels, and covered in successive layers with oats. He has found nothing better. By this process they are excluded from light, and the heat varys but little, and if the early ripening kinds are placed on the top, and the last at the bottom, they need not be disturbed.

As to the kinds selected, he said "many make a greater ado about the kinds of fruit, than the care they take of them after they have them. Make the tree good by proper attention to its wants, and in most cases the fruit will be good too. You must not believe all the fruit-books advocate, for the experiences of the writers are often limited. A particular variety of fruit may be successful in one place, but the soil and climate may vary so much that it will be worthless in another, and then the author or compiler will be blamed. Go to the fairs in your vicinity, and see the specimens there; ask the exhibitors and every one else that has had experience with different kinds in the section of country where they reside, and you run but little risk. If a new and untried sort is desired, the better plan is to procure one and take grafts from it, and insert them on thrifty bearing trees. Then if it proves a good purchase, you can continue grafting or procure new supplies. If not good after two or three years' trial, graft the trial trees over again with some other kind. But don't be discouraged the first or sometimes the second year it bears, for some of the best I have were poor at first fruiting. I consider the man that plants pear trees in sward ground, and allows the grass to grow around them, does worse than throw his money away, for he loses his time and labor too, besides discouraging others from making the attempt.

Another object of importance with me is, to make home attractive to myself and family. We know how pleasant it is, after a day's labor, to find comfort and plenty in the house when we return, and equally so is it to me to have trees of beauty, loaded with ripening fruit, around my homestead. As we look around our dwellings, and see the different kind of fruit trees, covered with blossoms, or luscious fruit, we forget our weariness, and they never taste better than then.

This is the way to make farmers' boys love home, for what boy is there that does not love fruit. No matter how far they are separated from the old fireside, home and fruit will be remembered together. I give my sons the management of the nursery; they like the employment, and it can be attended to in those little odd times through the summer when we are ahead of our farm work. If my boys buy farms, and as it is nearly always the case there are not trees enough, here they have a supply. You will almost always see the boy that engages in cultivating flowers and fruit, kind and gentle in his manners. You will not find him with the fast young man, with their fast horses, going to all the doings in the country, and reckless in their habits, but he will rather choose the company you prefer him to have—the intelligent and virtuous. There is more in rendering home attractive to your children, by adding to their enjoyment, than many are aware of."

But to return to the nursery, and his method of raising young trees. He said: "We cannot have trees in variety or value, as nurserymen have, but plant one or two hundred pear seeds and if but half succeed there will be enough to commence. So with apples, plums or cherries. The chief thing is to make the ground rich for the young trees, and keep it clean. Quince trees can be raised with great ease and certainty by cuttings. The same is true of some kind of elms, willows and poplars, and of currants, gooseberries and grape vines. All it wants is "perseverance and good culture." He showed some old pear trees he had grafted over with Bartlett and other improved kinds. They will bear mostly in three years afterwards, and in a few years they will be loaded. If the tree is moderately thrifty, he grafts all the limbs that are not more than an inch and a half in diameter. It is not best to take much larger limbs, for the wood will decay before the scions cover it. If the tree is not thrifty, he saws off the limbs of the size mentioned, and grafts or buds the sprouts from them. It is astonishing how much more thrifty in growth, and healthful in appearance, these trees are, especially when covered with golden fruit, instead of the native or old choke-throat trees. He says he pities the owner who has fine trees loaded, often with worthless fruit, when he can so easily and in a short time have the best in abundance.

As my sheet is full, I must furnish my neighbor's account of his apples another time. S.

NORTH HEMPSTEAD, L. I.

EGGS.

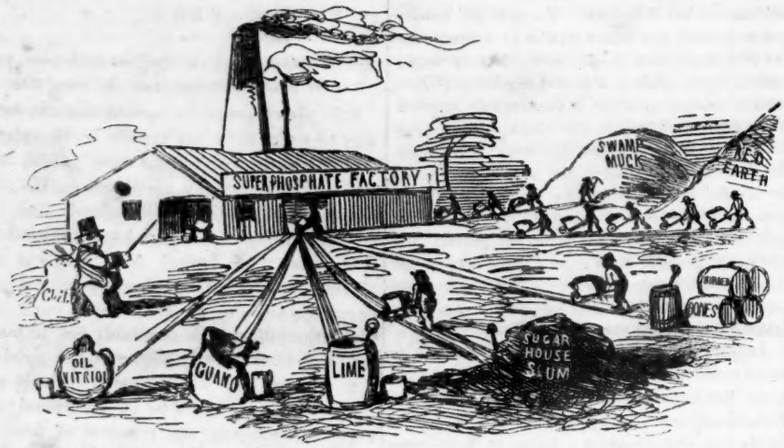
How to get a large increase at little cost, and secure other advantages at the same time.

It is pretty generally agreed that the best way to make hens lay rapidly is, to supply them liberally with animal food. Hens are not very fastidious, but will eat worms, decaying meat, intestines of animals, and, indeed, anything of the flesh kind, and convert it into nice "hen fruit." Now, why can not all the butchers' offal, and refuse animal and vegetable matters, so abundant in our cities and large villages, be profitably fed to poultry, and thus greatly augment the production of eggs and poultry meat at little expense? There would be an additional and great advantage in the removal of what is frequently a great nuisance to our olfactories, and decidedly deleterious to health. There is an incredible amount of these matters constantly wasted, every particle of which, originating in the city slaughter-houses, might be saved and made useful. Were these located in the country, at various points on our railroads, so as to admit of certain and immediate transmission of meat to the city, extensive *henneries* might be established in connection with them, where the poultry could have a free range to insure *health*, while they derived their food mainly from the offal. With a warm shelter, the animal food thus fed to hens would insure their laying during Winter equally as well as during warm weather. Nothing so effectually secures this as the use of animal food, and every part of the butchers' offal, when fed to hens in a form that they can swallow, is valuable for this purpose. Eggs produced in the winter, and near large cities to which they can be sent fresh, are worth from two to three dollars per hundred, at which rate much of the offal that is now thrown away will pay nearly as well by feeding to poultry, as the good meat will sell for to consumers. Here is an important consideration for the thrifty and philantbropic. There are inducements enough to bring the faculties of each of these estimable classes of our citizens into full play, as, besides filling their pockets, they will sweeten the atmosphere and render it more wholesome.

We are glad to learn that the directors of the Erie Railroad propose setting apart extensive accommodations, some distance beyond Jersey City, for slaughter-houses. A very commendable project. But individuals ought to do this at various points, on every avenue leading to our cities, where animals are now kept for slaughter.—[ED.

UNITED STATES AGRICULTURAL SOCIETY

The Fifth Annual Meeting of the United States Agricultural Society will open at the Smithsonian Institute, Washington, on January 14th. The exercises will consist of: distribution of the Journal of the Society for 1856; awarding of premiums on field crops; election of officers for ensuing year; action upon propositions for the next annual exhibition; a lecture by Professor Henry, upon Science applied to Agriculture; another lecture upon the Grasses of the United States, by Charles L. Flint, Esq., Secretary of Massachusetts Board of Agriculture, together with other lectures, discussions, &c.



MANUFACTORY OF SPECIAL MANURES.

MONDAY.

Foreman—Well, boss, what's on hand to-day?

Director—Make up another batch of Superphosphate. Be careful to get black muck enough in to give it a darker shade than that made on Saturday. Use *three* barrow loads of muck, only *two* of the red bank, one small barrow load of *burned* bones, as much of the sugar-house scum, a small measure of guano, and a mug of oil vitriol. If it don't have a good smell, add a little lime.

Foreman—All right. How shall we mark the bags?

Director—Superphosphate A No. 1, of course.

THURSDAY.

Foreman—We are out of that chee-chee—guano, what d'ye call it

Director—Put all hands on then. Remember now, *six* men on the red earth bank, *three* at the muck heap on the lightest colored part; mix well together, and put in lime and guano enough to give it a good smell. Mind now, do'nt get in too much of the guano. That is expensive. We must make enough on this lot to pay a good per centage to agents, and have *something* left for profit. Be careful to damp the bags and roll them in good Peruvian guano before filling them. They are all *marked* right.

A MACHINE MILKING TRIAL.

To the Editor of the American Agriculturist.

Having read your notes and queries in the December Agriculturist upon Milking by Machinery, I send you an account of a trial of Needham's Machine, to which I suppose you refer in speaking of the "New-Hampshire Yankee's" patent. This consists of an air-tight pail with an air-pump upon the side, and a gutta percha tube fastened upon the top. This tube terminates in four receptacles for the teats, each division being supplied with a stop-cock. When the receptacles are placed upon the teats, the air is pumped from the pail, the stop-cocks opened, and in consequence of the vacuum formed, the milk rushes from the bag—provided everything works right. But there's the rub. I witnessed a trial before a Committee of the American Institute, recently, and was both amused and edified.

The first operation is to get the teats into the receptacles, and he who undertakes it has need to be "well grounded in patience." After a number of ineffectual efforts, one teat was at last got in, and the operator proceeded to a second. I now thought everything would proceed regularly and satisfactorily, but when the second teat was *almost* in, the first slipped out, and the operator had to begin *de novo*; but his patience and perseverance were admirable. After a number of repetitions of this mishap, two teats were finally got in their places, but just as he began with the third, they both slipped out! It was too vexatious, but still the operator's patience did not fail him; and I confess a feeling of sympathy, laughable as was the scene.

The operator began again, and after many fruitless efforts, finally concluded to try one teat. Having at length secured it in the receptacle, the valve was opened, the pump put in motion, and for a moment the milk flowed in a rapid stream; but suddenly it stopped, and no amount of pumping would bring forth another drop. During all his time the cow stood comparatively quiet, but she now became restive, kicked up her heels right and left, and the by-standers, hitherto as "quiet as lambs," now went "skipping about like rams," and thus ended the trial of the patent cow milker. The time consumed in the above trial was a little more than one hour. The chief defects of the milker were obvious: the connecting tube was too small, and the receptacles not at all adapted to receive or retain the teats. But even with these improvements, it may be doubted whether it can be made an article of general utility. I do not feel convinced that cows will generally submit to be milked in this way; besides, the time consumed in attaching the milker is more than enough to do the work by hand. If these difficulties can be overcome (and I hope they may), there can be no doubt that a milker of this kind would be a great boon to dairymen. I hope that Mr. Needham may hereafter achieve a success which his patience and perseverance deserve. M. B. P.

New-York, December 10, 1856.

THAT CHINESE POTATO.

To the Editor of the American Agriculturist:

I notice in the "Country Gentleman," an advertisement of Messrs. W. R. Prince & Co. of Flushing, in which they represent themselves as having the "only Chinese potatoes of *American growth*." Is this so? and of the quantity of seed sold by them, and disseminated by the Patent Office, by the Thorburns and others in countless thousands, has the yield been *nothing*, except in their isolated case? Or has the crop of every one else, as represented in the engraving you gave in your last number, gone *home* to our antipodes? There is a hitch somewhere—where is it? Humbug.

New-Jersey, December 18, 1856.

Apples—Best Varieties for General Cultivation.—M. G. D. and other enquirers will find this subject fully discussed in the October number of last volume.

Garden, Orchard, Lawn, &c.

CHAPTERS ON STRAWBERRIES.

CHAPTER I.

We propose in a series of brief articles to take up the culture of the strawberry, giving from month to month practical directions for the work appropriate to the season, both for garden and field culture, and interspersing the whole with such remarks upon the nature, varieties and characteristics of this interesting and valuable plant, as we may have room for, and as may seem to be most pleasing and instructive to the general reader as well as amateur.

It being impossible, at this season of the year, to commence or carry on any actual process of cultivation, we will, in this number, enumerate the prineipal kinds found growing wild, both in America and Europe, from which all our cultivated varieties have been obtained, together with a few brief remarks upon their characters.

In the United States, we find growing in our fields the small sweet red strawberry, called by botanists *Fragaria Virginiana*. This is found in all the Middle and Northern States, and also in Canada and Newfoundland. In the Southern states it grows only in the woods. This is the parent of many of our cultivated kinds. It is also the parent of some varieties raised in England. The large early scarlet, so well known in the New-York market, was raised from the seed of this species. The Hudson Bay and the Crimson Cone are also varieties of the Virginiana. Hovey's Seedlings and Boston Pine evidently partake of its nature.

There has also been found growing wild in the prairies of Iowa, a large beautiful strawberry, quite distinct from the Virginiana. Its only fault is that of being too acid, (sour.) Some vigorous and productive varieties have been produced from this kind, but they all partake too much of its sourness.

In South America, we find two species—the Grandiflora of Surinam, and the Chili of Chili. The first is remarkable for its large showy blossom, large and delicious light scarlet fruit. Some of the finest kinds now raised in Europe have been produced from the seed of the Grandiflora. The British Queen, and Myatt's Seedlings, and the Swainstone Seedling, all delicious berries, have been raised from this species. These varieties succeed well in the moist and mild climate of England, but are almost sure to fail in the United States. They are injured both by our severe winters and scorching sun.

The Chili is a very large and solid berry, of medium goodness, but is quite too tender for the Northern States. In the Southern States it would burn up. Some seedlings have been raised from it in England, but none, we believe, of much repute, except Turner's Pine, which is valued princily for its lateness. Some seedlings have been raised from this species by Mr. Prince, of Flushing, but they have not, we think, been sufficiently productive to recommend them to any but amateurs.

Europe, we believe, claims three species

of strawberries—the Common Wood, the Hautboy and the Alpine. The wood strawberry is a small conical berry, dry and seedy, but of an agreeable flavor. It is a very productive kind, and valuable for its habit of continuing a long time in fruit. One peculiarity of this kind is, that it does not *sport* (change its character) when raised from seed; there is consequently but one variety, except that some are red and some white. The Hautboy is a larger fruit than the Wood, and darker in color. It has a large blossom which is elevated quite above the leaves. The fruit has a peculiar musky flavor, agreeable only to a very few persons.

The Alpine grows upon the Alps. It is an everbearing variety. The fruit resembles that of the Wood strawberry, and is of three colors, red, white and green. The green is very scarce in this country, valuable only as a curiosity.

The Alpine strawberry is raised in Europe for a supply of fruit after all other kinds have gone out of bearing. It is not very productive, and requires much care and copious watering to keep it in bearing during the summer. In our hot and dry summers it is not worth cultivating, unless one is willing to plant and tend a large bed for a small return.—[Ed.

EVERGREENS—RAISING FROM SEED.

To the queries respecting the Hemlock (*Abies Canadensis*) and the Arbor Vitæ (*Thuja Occidentalis*), we answer: These varieties of evergreens, and also the Spruce and White Pine, have until recently been chiefly taken from those localities where they spring up naturally. But the many failures in transportation, and the coarse character of the wild plants, have led nurserymen to turn their attention to producing them from the seed, or importing them from Europe (mostly from Great Britain). We give a few directions for the guidance of those wishing to produce a stock of seedlings.

The seed may be procured from the seed-dealers, or gathered in the forest. It always produces plants true to its kind.

Prepare beds from four to six feet wide, and of any required length, by spading and trenching the soil. Place a frame around them, made of boards say about one foot in width, nailed together at the corners. Sow the seed in April or May, either in drills or broadcast, and cover rather lightly with loam, or, what is better, a mixture of loam, decomposed leaves and muck, which will make a soil nearly allied to that in which they grow best naturally. The seed will vegetate in a few weeks, when the beds should be carefully watched, and the tender plants shielded from the direct rays of a scorching sun, and still not kept in a total shade. Brush laid across the frame makes a good shade; or a covering may be formed by nailing laths to strips of board, leaving a space of about half an inch between the slats. Either of these coverings, as the sun passes over them, casts a shade much resembling that made by the branches of the living tree to the plants which spring up beneath it. The screens should be laid over the beds during each hot day, as soon as the sun shines directly upon the plants, and removed towards evening, when the rays are less powerful. The narrowness of the beds allows of their being weeded, and the ground carefully stirred, without going upon them. Water should be given occasionally, and the screens left off during rains. The plants may grow in the seed-beds for two or three years, when they are to be carefully transplanted into the nursery rows, keeping the roots covered and moist during the operation. It is essential that the ground be thoroughly and deeply stirred in the nursery, so that abundance of fibres may be formed, and an after transplanting to the lawn, pleasure-ground or hedges, be done with safety.

Another, and perhaps a better plan, especially if one has green or hot-houses, is, to sow the seed in March or April, in boxes of prepared mold, peat, &c., placed in the houses, watering as is necessary, but guarding against "damping off," by having drainage at the bottom of the boxes.

As the weather becomes mild, expose them to the open air, but not to a hot sun. By the latter process the plants can be more readily attended to, and the earth kept in a proper shelter, or exposed, and watered when needed. After growing, say two or three years in the boxes, they may be transplanted into the nursery rows, as above directed, when the after treatment is very easy and simple. The greatest care is requisite during the first year, as too much sun, or dryness, will burn them up, and too long continued moisture will cause them to damp off. Water should not be given too frequently, but the ground thoroughly wet whenever it is done.

The plants should be protected during the first winter, by placing the boxes in cold frames, dry cellars, pits or cool houses, admitting air and light to them frequently. If in beds surrounded by frames, cover with boards or evergreen brush, not, however, excluding the light, which is essential to a healthy state.

The above directions are equally applicable to the Arbor Vitæ, Hemlock, Spruce, Cedar, White and other Pines.—Ed.

PEACH STONES—KEEPING AND PLANTING.

A subscriber who has collected a quantity of peach pits, and who expects to remove West in the Spring, asks if he can keep them over till another Fall, &c.

They can be preserved that length of time, and retain their vitality, by keeping them in a dry place, but they *may* not vegetate the first year, if so kept. If our correspondent can plant by the middle of April, we advise putting the pits in sand or earth now, and expose them to the frost. They will then be ready for planting as soon as the ground can be worked in the Spring, and will grow at once. If they can not be planted before April, it is better to preserve them in a dry state, and then crack them in the Spring or early part of Summer (the earlier the better), and plant the kernels (meats) only, which will very soon vegetate.—Ed.

A CLERGYMAN'S GARDEN.

We have upon our list of subscribers quite a large number of clergymen and professional men, and for their benefit we give the products of the garden of one of our clerical friends for the year 1856. It is offered, not exactly as a model, but as showing what may be done with a little land, by gentlemen who can only devote an hour or two a day to its cultivation. The garden consists of about an acre and a half. It is cultivated with a view to supply home wants, and it is only the surplus that is sold. The family consists of eleven individuals; the stock, of a horse, cow, four pigs, and forty hens. The garden has been under cultivation for six years, and a part of it has been trenched two feet or more deep. The principal manure used during all these years has been made upon the premises, from a compost of muck and stable manure. Not less than one hundred cords of muck have in this time been worked into the soil. The value of the products is estimated at the market price.

The labor done in the garden, manure, seeds, &c., are estimated at two hundred dollars, which is very liberal, as all the manures were made upon the place. The estimate for the increased value of the young trees will not be thought too large, when we consider that the most of them are well established, and many of them are beginning to bear.

Four thousand ears of Stowell's sweet corn	$40 00
Two hundred ears of July sweet corn	2 00
Corn fodder	3 00
Lima beans	10 00
Scipios and white kidneys	3 00
Twenty bushels of Carpenter potatoes	20 00
Six bushels of sweet potatoes	9 00
One hundred and eighty bushels of carrots on thirty square rods	45 00
Five bushels of beets	2 00
Ten bushels of onions	8 00
One bushel of oyster plant	1 00
Egg plants	2 00
Celery	5 00
Thirty bushels of parsnips	15 00
Three hundred pounds of asparagus	15 00
Cabbage, cauliflower, kale and Kohl Rabi	3 00
Sixteen bushels of ruta bagas	6 40
Red strap leaf turnips	1 00
Two hundred bunches pie plant	20 00
Lettuce	2 00
Cucumbers	2 00
Sage, Summer savory, parsley and other herbs	1 00
Three hundred roots of pie plant on hand, Myatt's Linnæus, Victoria, and seedlings	30 00
The growth on twenty-three apple trees in their fifth year	15 00
The growth on two hundred pear trees	40 00
Ten dozen pears, Vicar of Winkfield, Virgulie, Louise Bonne de Jersey, Glout Mercen, &c.	10 00
The growth on one dozen cherry trees beginning to fruit	3 00
The growth on one dozen plum trees	3 00
One bushel peaches	2 00
Quinces	50
One bushel of grapes, Isabellas, Catawbas, Dianas,	3 00
One hundred layered plants of the above	25 00
Growth on ten planted vines	5 00
Six dozen Lawton blackberry plants	18 00
Five bushels of strawberries, Hovey's seedling, Walker's seedling, Longworth's Prolific, and McAvoy's	40 00
Plants sold	11 00
Raspberries, Franconia, Falstol, Yellow Antwerp,	10 00
Young plants on hand	20 00
Water-melons, green imperial, orange, Bradford	4 00
Nutmeg and Green Bay melons	5 00
Currants, gooseberries, &c.	2 00
Total	$461 90

The amount of profit would be considered

small by many professional men who have large incomes, but it is an important item with our clerical friend, and the garden contributes largely to the health and comfort of his household. In the item of health alone, he considers that it pays, even if there were no pecuniary profit. He has enjoyed almost uninterrupted health during a ministry of twelve years, losing but two Sabbaths in all that time. His garden is his medicine chest and his Europe, infinitely better than blue pill and the discomforts of a sea voyage and the hospitalities of the hotel keepers of the Continent. He is well satisfied that gardening pays as well in the health of the body and of the mind as it does in the purse. He takes the papers and reads them.

HALF AN ACRE.

In another column we have given the results obtained in a clergyman's garden, consisting of one and a half acres. Here we propose to show the plan and arrangement of a *mechanic's half acre*. The accompanying plan is an exact drawing of the village plot of Mr. H. Smith, of South Norwalk, Connecticut. As we have before referred to this matter, it will not be new to some of our readers, but it will be so to ten thousand others. Mr. Smith is a hard-working mechanic, who labors ten hours a day in his shop, and our object in again introducing a plan of his garden, is to show to others similarly situated, that there is a great amount of real enjoyment, as well as profit, to be derived from the tillage of a limited area of ground. Mr. Smith attends to his garden almost wholly himself, out of business hours, and finds pleasure and recreation in so doing. We present this plot, not so much to recommend this particular plan, or the varieties of fruits or plants marked down, as to show what *can* be done. No two cultivators would follow precisely the same method, nor is it desirable that they should. There is a wide field here for the cultivation and development of taste and skill.

DESCRIPTION OF THE PLAN.

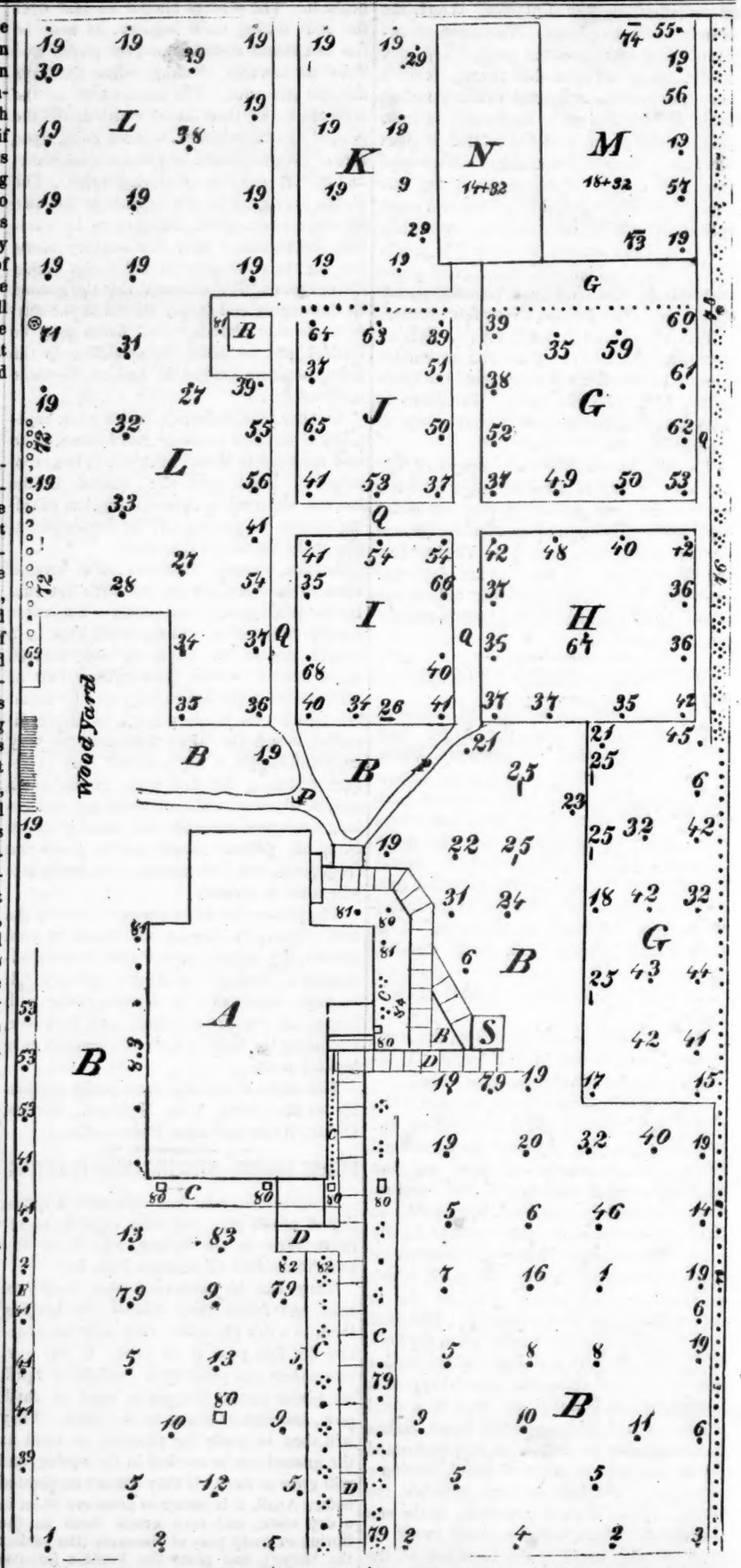
Our engraving represents a plot 96 by 205 feet, and is drawn to a scale of about 20 feet to the inch. To make the plan as plain as may be, the letters, figures, and lines are necessarily drawn too large for the best effect upon the eye. The lower part of the plot, which is the west end, fronts upon the road running north and south. Outside of the fence are four white ash shade-trees not here indicated.

The figures refer to shade and fruit trees of different kinds and varieties.

A, the dwelling-house; B, B, B, grass-plots; C, C, C, borders for shrubbery and flowers; D, D, flag-stone walks; E (on the right), border for currants; F, (on the left), border for dwarf pears and dahlias; G, G, G, strawberry beds; H, plot for blackberries and raspberries; I, J, K, L, plots for vegetables, &c., described below; M, a vine border; N, a cold grapery; O, raspberry border next the fence; P, P, foot-paths through grass-plots; Q, Q, garden-walks; R, privy; S, well.

The three strawberry plots, G, G, G, contain eleven varieties, viz.: Hovey's S. pine; Boston pine; Burr's new seedling; McAvoy's Superior; large early Scarlet; Jenny's Seedling, Crimson Cone; Le Baron; British Queen; Princess Alice Maud; and one variety, name unknown.

The square plot, H, beside 13 dwarf pear trees and 5 white Smith gooseberry bushes, contains of raspberries 15 hills red Antwerps, 9 hills white Antwerps, and 9 hills Franconia. On the same plot are 5 hills New-Rochelle blackberries, and 1 hill of white blackberries; 1 large pink peony on the north-east corner, and 4 sage roots. During the past season there have been raised on thi



plot 8 dwarf pear trees from the bud; 10 hills early nutmeg potatoes; 3 hills crook-neck bush squashes; 2 hills of corn; 13 cabbages; some parsley roots, and over *eight quarts* of very fine strawberries. The strawberries are grown between the white and red Antwerp raspberries.

On the plot I, beside the trees indicated by the figures, and described below, there are 8 currant bushes; 8 gooseberry bushes, of a large green variety, name unknown; 1 climbing rose, near 40; 1 white fragrant peony, near 54; 1 wormwood plant, near 41; 1 yellow rose: 1 garden Isup plant, as it is called, and 7 flower roots of various sorts. During the past season there have been raised on this plot 30 gooseberry plants, from cuttings; 29 Angers quince stocks, which are now budded with a variety of pears; 6 two year old dwarf pears, to be removed; 1 row, across the plot north and south, of early beets; 3 rows of early radishes; 2 rows of bush beans; 1 bed of early beets, which furnished more than was used by the family; 8 cabbages; 4 dahlias, and lettuce in abundance. Two crops of radishes were grown round the edge of the beet bed. Mr. S. says he generally plants radishes around the beds of beets, onions, &c., as they are soon grown and out of the way.

The plot J, beside the trees indicated, and 7 flower roots and 6 dahlias, has produced, the last season, 2 beds of onions with radishes; 2 beds of early peas; 2 rows of early nutmeg potatoes, in drills; 1 bed of late beets, for winter use, and 30 late cabbages. The ground occupied with early peas and potatoes was afterward sown with Russia turnips, which did not do well on account of the drouth.

The plot K was planted with bush beans, potatoes, and some winter squashes.

The plot L, L, beside the trees, is chiefly devoted to vegetables. There are 4 blackberry bushes, and a row of flowering plants along the walk Q, from the house to the privy, R. On the plot L, L, there have been cultivated the past season, early cucumbers, potatoes, sweet and chicken corn, bush beans, Lima beans, a bed of peas, gherkins and late cucumbers, for pickling; nasturtions, and some winter pumpkins among the corn and potatoes.

N, is a cold grapery, 14 by 32 feet, containing a cistern, a simple force-pump, and 25 grape vines, of the following 13 varieties: 8 black Hamburgs; 3 white Muscats of Alexandria; 2 royal Muscadine; 2 grizzly Frotignan; 2 Chasselas de Paris; 1 Chasselas de Fontainebleau; 1 red Chasselas; 1 black Prince; 1 black St. Peter's; 1 Zinfindal; 1 white Frontignan; 1 de Candolle; 1 golden Chasselas. Ten of these are planted in front; 10 against the back wall; 3 at one end, and 2 at the other, the pump occupying the place of one vine.

M, is a grape border, 18 by 32 feet. Around the edge of this there have been raised, the past season, melons, winter squashes, and large peppers, for pickling green. The roots of the front vines in the cold grapery spread out under the sill into the border.

O, is a raspberry border, by the side of the fence. Mr. S. says the vines should have been placed far enough from the fence to admit a walk.

EXPLANATION OF THE FIGURES.

Where there is more than one tree of the same kind and variety, the figure indicating its location is repeated. 1, horse-chestnut; 2, dog-woods; 3, elms; 4, English mountain ash; 5, cherry trees, of the following seven varieties, viz.: 1 each of Mammoth, yellow Spanish, Coe's Transparent, White-Heart, Honey-Heart, 2 black Tartarian, and a black Mazzard, to be grafted with the May Duke; 6, common red cherries; 7, dwarf May Duke Cherry; 8 dwarf apples, Fall pippins and Wagener; 9, Norway spruce; 10, balsam firs; 11, white pine; 12 fir tree; 13 Denny plums; 14, imperial gages; 15, green gages; 16, seckle standard pear; 17, standard pears, grafted with Lawrence and Beurre Clairgeau; 18, standard pears, grafted with Bartlett and early bell; 19, peaches of the following varieties: 2 each of Morris white, Snow peach, Crawford's late Melocoton, yellow Melocoton, yellow Rareripe, and Darien peach, and 1 each of Nutmeg, Magistrate, Druid Hill, Heath Cling-stone, Old Mixon Free-stone. There are 9 trees of natural fruit, and some budded ones, but names unknown; 20, Dix pear, standard; 21, apricots of 2 varieties, viz.: Moor-park and Dubois' Early Golden; 22, plum tree, name unknown; 23, red Siberian crab apple; 24, snowball bush; 25, Isabella grape vine; 26, Catawba grape vine; 27, Coe's golden drop plums; 28, Chinese sand pear, standard; 29, apple trees of the following 3 varieties, viz.: Fall pippins, Newtown pippins, and Esopus Spitzenburg; 30, quince tree. The following pear trees, from 31 to 69, are all dwarf pears: 31, Flemish Beauty; 32, Bartlett; 33, Josephine de Malines; 34, Soldat Laboreur; 35, Glout Morceau; 36, Beurre Easter; 37, five varieties, names unknown; 38, Columbia; 39, Vicar of Winkfield; 40, Seckel; 41, Louise Bonne de Jersey; 42, Duchesse d'Angoulême; 43, Madeleine; 44, Beurre d'Aremberg; 45, Lawrence; 46, Catillac; 47 Bonne des Zees; 48, Swan's orange; 49, Beurre brown; 50, Passe Colmar; 51, Doyenné gris; 52, Napoleon; 53, Beurre Diel; 54, white Doyenne; 55, Beurre Clairgeau; 56, Urbaniste; 57, Doyenné Boussock; 58, Bezi d'Esperin; 59, Beurre d'Amalis; 60, Winter Nelis; 61, Beurre Langelier; 62, Brande's St. Germain; 63, Belle Lucrative; 64, Van Mons Leon le Clerc; 65, Beurre d'Anjou; 66, Golden Beurre of Bilboa; 67, Jaminette; 68, Doyenné d'hiver nouveau or d'Alençon; 69, Buffum; 70, Bartlett standard; 71, hop vine; 72, rhubarb, two varieties—one Victoria, and the other unknown; 73, Concord grape; 74, Charter Oak grape; 75, tansy; 76, red raspberries; 77, black raspberries; 78, the dotted line crossing the upper part of G and J, Victoria, white and red Dutch currant bushes; 79, rose of Sharon; 80, climbing roses, of the following six varieties: double red Michigan, Baltimore Belle, Mohican, Noisette, Solfaterre and William Jesse; 81, lilac; 82, boxwood; 83, rose bushes; 84 tea plant. The rest of the borders, C, C, C, C, contain a variety of shrubs, among which are the following: 2 flowering almonds, 3 Corchoruses, 2 snowberries, 2 sweet-scented shrubs, 1 flowering currant, 1 barberry, 1 yellow rose, 1 moss rose, 3 Burgundy roses, 3 damask roses, 1 Marquis Bocella, 1 Dubourg, 1 Mrs. Bosanquet, 1 Reine de Fontenay, 1 Agrippina, 1 Elegans, 1 Fabvier, and several others, names unknown. In the borders, also, are peonies, pinks, tulips, daffodils, primroses, lilies, gladiolas, dahlias, hollyhocks, bluebells, &c.

We have thus put down somewhat minutely the names of the various trees, shrubs, vegetables, &c, which we saw actually growing on the above plot, containing only 19,680 square feet all told, while half an acre contains 21,800 square feet. There is no appearance of confusion.

Mr. Smith stated that, in order to make the most of a small space, he sets the peach trees between others that are longer-lived, expecting to gradually remove the former, after getting three or four crops. So in planting apple trees, it is better to set them twice as thickly as they will ultimately be needed, and gradually remove the limbs from one half of them when they interfere, and finally cut them out altogether. The produce of the trees thus removed would amply repay their expense.

There are many other common garden vegetables not named above, such as carrots, parsnips, celery, spinach, &c. These, Mr. Smith remarks that he did not require for his own use, and therefore does not grow them. Just back of the lot there is a bed of asparagus, in a salt meadow, where it flourishes finely.—Ed.

GRAFTING AND BUDDING.

To the Editor of the American Agriculturist:

If the following is, in your judgment, of any value to your readers, it is at your disposal. I dispense with the use of clay and wax in grafting, and tie nothing on to protect the budding, but use plasters of cemented rags only.

I procure *well worn* cotton rags, and for budding tear them in strips not more than half an inch wide—for grafting, a little more than an inch wide. They may be short or long, though a regular length would be better for both purposes. The narrow strips are then wound round a short stick smoothly and loosely, care being taken that the end of the former strip laps over the first end of the last strip added, otherwise in unrolling it would be difficult to find the ends. The roll will be like the bandages used by surgeons for broken limbs.

The compesition I use is 1 lb. of resin, 1 lb. of beeswax, and 1½ lb. of tallow; into which, when perfectly melted and mixed, the rolls are put, *not* to *soak* merely, but to *boil until the bubbles entirely cease to rise on the surface*, for then it is certain that all the air is, by the heat, excluded from the rolls, and the vacuum filled up with the cement. This plan, of course, is adopted with bandanges of any width. The rolls should be taken out while hot, and when cold used as required.

From six to eight inches of the narrow strips will be enough for budding, which will, with the warmth of the hand, stick without tying; and if the rags are sufficiently *tender* no further care is needed, for they will not cut into the wood or bark, but tear as the tree expands.

This plan I have for years adopted in budding; and the present year for grafting apple trees, even as late as the 27th of June, which have grown finely. Of course the wider strips are used for grafting. The same will do well to bind around trees that have been wounded in any way.

Henry C. Howells.

Eagleswood, Perth Amboy, Dec. 3, 1856.

WINTERING CABBAGES.

An article on this subject was accidentally "left over" last month. It may not be too late, however, to offer a word on this subject now, which will, at least, be in time for next autumn. In warmer latitudes, cabbages may remain out all winter with advantage, as they will continue to mature and improve in quality as long as they are not entirely frozen. In colder countries, they may be kept in the cellar, but when not desired for winter use, and even then they keep better in the ground than in the cellar. Some succeed well by laying down two poles, say three or four inches apart, inverting the cabbages upon them without removing the roots, and covering the heads with a moderate coating of earth. This is a very common method. Another plan, not so common, is to dig a long trench five or six inches in depth, and transplant the cabbages into it, setting them in a single row close together. Then erect over this a rough frame by setting up crotched stakes, and laying on poles or brush with a little straw. Cover the whole with a layer of earth, and the heads will remain green and continue to fill out during the whole winter. They can be taken out fresh whenever wanted, by opening one end of the pit. Some care and watching will be required to keep out the mice. If these make their appearance, we know of no way of destroying them but by catching them in traps, and then closing up their holes. By securing the first intruders, their multiplication will be stopped, and little trouble will be experienced. An air-hole should be left at each end of such trenches. These holes may be covered with pieces of old wire-cloth, or fanning-mill sieves, to shut out the free access of mice.—[Ed.

What makes the ocean get angry, mother! Because it has been crossed so many times, my son.

Pot Roses.

ROSES IN POTS.

We present above a drawing of a specimen Rose in a pot, which our artist has executed in a masterly manner. We give this as a standard of excellence at which our amateur and professional readers should aim. The trouble at first may seem great, but the satisfaction is greater. The Rose selected for this purpose should be some free-blooming and free-growing variety, such as Hermosa, Bourbon Queen, Paul Joseph, Mrs. Bosanquet, Caroline de Sansal, Pius IXth, Agrippina, Devouiensis, Le Pactole, Safrano, &c.

We prefer keeping the plants in pots through all their stages of growth from the cutting; but this requires much care and attention. Another mode, and perhaps better one for the young amateur, is to select strong vigorous young plants from the border in the fall of the year, and put them in pots just large enough to hold them without cramping the roots too much. If any of the roots become bruised or broken, cut them off. Cut away all but two or three of the strongest shoots, and shorten these in. The soil must be rich and strong, yet not retentive of moisture. A good compost may be made of two parts of well rotted sod, one part of old manure, and one part of leaf mold. Let the pots be well drained. When the plants have been potted as above, place them in the coldest part of the greenhouse; or, better still, keep them in a frame or pit out of doors till about the middle of February or beginning of March. The object now must be to push them into a vigorous growth. This will be accomplished by the occasional use of a solution of guano or manure water, and a shift into a large pot. This is the point where failure generally begins, especially with young amateurs. They can not make up their minds to pinch and cut; it seems to them like Vandalism; and yet, as a general thing, a fine specimen plant can not be obtained in any other way. It would consume a great deal of space to go into all the detail of pinching and cutting in; and too much detail is apt to lead to confusion. We will state generally, that two or three leading shoots must be selected to form the body of the plant. The side shoots or laterals must be cut in to give form and comeliness, and it will be necessary to cut some out entirely where they interlace each other too much. Let no buds form until you get ready for a general bloom. To produce the desired result, good judgment and taste mus be exercised, which will be greatly assisted by the cut at the head of this article. Keep that before you as a model, and if you do not succeed in your first attempt, try again. Few great objects are attained in a single trial; but perseverance will in the end crown your labors with success, and your gratification will be great. If you do not succeed in producing as magnificent a specimen, you may approach more or less near to it.—Ed.

THE VERBENA.

Our "young friend George," of Westport, Connecticut, writes us for information about the *Verbena*. We shall always be glad to impart to our young friends any information we possess, and speak a word of encouragement to them. The matter that puzzles you so is only a seeming contradiction. The Verbena is not an annual, but a perennial; however, as it ripens its seed every year, it may be grown as an annual. The book you refer to was written many years ago, before the introduction of the splendid hybrid varieties now cultivated, and when the Verbena was chiefly grown from seed. You might grow a thousand plants from seed obtained at the stores, and not raise one at all comparable to the best kinds now sold under name. We therefore say, in answer to your second inquiry, grow from cuttings, and not from seed; as it is only by cuttings that choice kinds can be perpetuated. In answer to your other inquiries, we answer, buy the plants, not the cuttings. Most of our florists have them for sale, and good kinds can be bought for about $1 50 per dozen. Some very choice varieties of recent introduction will cost more. The following is a select list: Brilliant de Vaise, Scarlet Defiance, Lord Raglan, King of Scarlets, Sarah, Admiration, Blue Defiance, Fair American, General Taylor, Henry Clay, Heroine, Jeannie Deans, Madame Lemounier, Iphigenie, Queen Victoria, Phenomenon, Salamander, Striped Eclipse, Thalia, and the list might be greatly extended. These you can buy in the Spring, and turn out of the pots into the border. In the Fall, take up rooted joints of each, or put down cuttings, which, when rooted, pot off, and keep in a warm room during the winter. We advise George, and all our readers, young and old, to grow the Verbena, for it is among the most charming bedding plants we have. In one respect, however, you will be disappointed; unless your olfactories are amazing sharp, you will certainly fail to discover the "exquisite fragrance" spoken of by your author. The person who can snuff "exquisite fragrance" from the Verbena, must be blessed with sweet olfactories. We have grown all the so-called sweet-smelling Verbenas, and regard such epithets as an abuse of words. We wish the Verbena were "exquisitely fragrant," for it only lacks this to make it probably the loveliest gem that decks either the green-house or lawn. There is a plant commonly called the "Lemon-scented Verbena," which is delightfully fragrant; its proper name, however, is Aloyzia Citriodora.

Our young friend also inquires if annuals can be grown from cuttings. We have struck cuttings of Mignonette, Sweet Alyssum, Lobelia (gracilis), Clarkia, Ladies' Slipper, and other annuals; but it is needless to do this, since they are so readily obtained true from the seed.

Our young friend is right in supposing that a knowledge of the names of plants adds much to the interest and pleasure of their cultivation; and our advice to him and to all others is, never to buy of a man

who does not label his plants: he is a sloven, and unworthy of his profession.—[Ed.

AMERICAN POMOLOGICAL SOCIETY—FRUITS RECOMMENDED, &c.

We have already alluded to the recent session of this Society, and have waited patiently for the official report of its proceedings; but as it may be some time yet before this is published, we present a list of the fruits adopted and recommended. There may possibly be some omissions, but we have made it as perfect as we could with the resources at hand.

Pears.—Of *Pears on their own stock* we believe but few additions were made to the list heretofore adopted for general cultivation. After Beurré d'Aremberg, the words "high cultivation" were added. Fulton was in danger of being stricken off. The following were added: Howell, Doyenné Boussock and Duchess of Orleans.

The following were added to the list of those which "promise well:" Philadelphia, Niles, Shencks, Richards, Fondante du Comice, Beurré Kennes, Emile d'Heyst, Counseilleur de la Cour, Comtesse d'Alost, Beurré Langlier, Bergomot d'Esperin, Doyenné d'Alençon, Delices d'Hardenpont, D'Albret, Delice, d'Hardenpont of Belgium, Excellentissima, Osband's Summer, Beurré Nantais and Dix.

Of the "rejected list," Bellissime d'Eté was added to it, and Bleecker's Meadow and Passans du Portugal, were taken from it.

Of *Pears* on *Quince* stock, Beurré d'Aremberg and Triomph de Jodoigne, were stricken from the list. The following were recommended by Berckmans, Wilder, Hovey, Reid, and others: Brandywine, Beurré Superfin, Jalousie de Fontenay, Beurré Gris d'Hiver, Doyenné d'Alençon, Passe Colmar, Belle Epine Dumas, Buffum, Seckel, Tyson, Beurré Sterckman, Theodore Van Mons, Kirtland.

Apples.—The following were placed on the list for general cultivation. Primate, Benoni, Hawley, Rambo, High-top Sweeting, Jonathan. The following were placed under the head of those that "promise well:" King, Caroline June, June Sweeting, Wagener, Smith's Cider, Winter Sweet Paradise, Fallawater, Broadwell. White Seek-no-further was removed from the list.

Peaches.—Of *Peaches*, Early Crawford and Old Mixon Cling were recommended for general cultivation. Susquehannah, Madeleine de Courson, Hative de Neigs, Hill's Chili, and Gergas, were added to the list of those promising well.

Cherries.—Coe's Transparent, Early Purple Guigne, Belle d'Orleans, Governor Wood, Reine Hortense, and Rockport Bigarreau, were recommended for general cultivation. Napoleon Bigarreau was recommended for special cultivation. Downton was removed from the list.

Plums.—Prince's Yellow Gage and Lombard were placed on the list for general cultivation. Pond's Seedling, General Hand, Bradshaw, German Prune, Duane's Purple, Fellenberg, and White Damson, were placed on the list promising well.

Grapes, (native).—The following promise well: Rebecca, Delaware, To Kalon, Concord. The Hartford Prolific and Northern Muscadine, were thought unworthy of cultivation.

Raspberries.—French, Cope, American Red, Ohio Everbearing and Catawissa, were recommended as "promising well."

Blackberries.—The Improved High Bush and New Rochelle or Lawton, were recommended for general cultivation.

Strawberries. — McAvoy's Superior, Hooker, Victoria, Le Baron, Longworth's Prolific, Genesee and Scarlet Magnate, were recommended as promising well.

We are a little surprised at the position occupied by some fruits in the above lists, but trust that the official list may show them to be in error, and we reserve our comments for another article.—[Ed.

RHUBARB OR PIE PLANT.

It is pleasant, in this wintry season of the year, to look forward to the labors and enjoyments of another Spring. Our own thoughts have been directed, for the past hour, to the spot on which our eyes have rested, viz.: the kitchen garden, and to that corner of it which contains our beds of rhubarb. We have thought of its huge pink crowns, thrusting themselves up through the rich mold, almost before the swallow dares to appear, and looking, in their own way, as beautiful as the daintiest hyacinths of the flower garden. We have thought of its leaves rapidly expanding, larger than the palm trees foliage, putting to shame the more conservative vegetables, and furnishing the housewife with invaluable material for pies, tarts, jams, jellies and sauces, at a time when the last year's fruits have perished or become insipid, and before other fruits have come forward to take their place. And these pleasant thoughts have induced us to make a few notes on the culture and the best varieties of this plant, without which, no garden is complete.

It can be raised from seed, though the plants so obtained are not of uniform excellence. Choose a warm, dry aspect; pulverize the soil well, as early in the Spring as it can be worked, and sow in drills an inch deep and one foot apart. An occasional watering in dry weather, faithful cultivation with the hoe, keeping down all weeds, and thinning out the plants until they are six inches apart, is all the care they require for the first season. In the latter part of Summer, prepare a bed for their permanent occupation. This should be in a dry and sheltered part of the garden, for the health of the plants, and to favor their early growth in Spring. If the soil is a stiff clay, a little sand should be added, and the whole heavily manured with well rotted dung, and spaded up at least eighteen inches deep. When the beds have become settled, remove the plants to their new quarters, setting them three feet apart in the row, and the rows four feet apart. The crowns of the plants should be set two inches below the surface, and should be covered, late in the Fall, with several inches of coarse litter. This will protect the roots from hard frosts in the ensuing Winter, and give them a vigorous start in the Spring.

Rhubarb is propagated also by division of the roots; and this mode is preferable, where only a few plants are needed, as it is then ready for use the first year after planting. If raised from seed, it should not be cut until the third year. The roots can be divided in the Fall, or very early in the Spring. Eight or ten plants are enough for an ordinary family; the market gardener will adapt the size of his plantation to the number of his customers. A single crown, or eye, is all that is needed to form an independent plant. Care should be taken, in dividing the old stools, not to mutilate the roots. The ground should be well prepared for their reception; for, though they will manage to grow as readily as a burdock, yet, like the burdock, they have a great liking for the best soils. It is an excellent practice of some, to give each plant several shovels full of manure every Fall. The stalks may be cut for the table when the leaf is only half grown, and they may be used nearly all Summer, though it is best to give the plant a resting spell in Summer, to mature its leaves and strengthen its roots.

Rhubarb may be brought forward very early in Spring, in several ways. It is the practice of some to place an old barrel or box (with the bottom and head out) over one or more plants, early in April, and to surround the whole with fresh horse manure, a foot in depth. This stimulates the plant into growth, and the barrel shading the leaves, causes them to shoot up long and rapidly. The stalks are more tender and less acid than when grown in the open air. An amateur of our acquaintance takes up a few roots of rhubarb every Fall, and placing them in tubs of dirt, sets them into his cellar to enjoy a nap of about three months, and then brings them into a warm closet behind his fire-place. Opening the window blinds in this closet, and giving his plants a free watering, they soon begin to grow, and furnish his family with a healthful and delicious desert, while yet the garden without is covered with snow. We have known others to bring forward rhubarb in greenhouses and other warm buildings. Others, again, set out several plants near the stable yard, and in the Fall place barrels over them, having holes in the top, and cover the whole with leaves or coarse litter. In the latter part of February, they remove the litter, and surround the barrels with warm manure, a foot in depth, and add to the same from week to week, as the leaves extend. The manure warms the roots, and gives almost a Summer atmosohere within the barrel, so that in about a month's time the barrel is full of leaves finely blanched, tender and crisp, which can be used until the other plants have come forward in the garden. The market gardener who forces his plants in this way is sure of a recompense for his trouble. In New-York market alone, many thousand dollars worth are sold every Spring. But if any one has not the time or means to pursue either of the above methods, let him set his plants in a sunny aspect, and

in the Fall cover a portion of them with six or eight inches of black peat earth or warm litter, and he will hasten their growth in Spring a week earlier than those unprotected.

As to the best sorts of rhubarb, we must say that, as a general rule, the best are those best cultivated. The *Giants* and *Mammoths* owe a debt to the manure heap for some of their fair proportions. There is, however, a choice, and these are among the best:

Tobolsk: Scarlet stalks, small, but very early.

Myatt's Victoria; Large, red stalks, with a rich, fruit-like flavor, and early.

Giant: Large, grown stalks; later than the preceding; a great favorite in England.

Mammoth: A seedling from *Giant*, stalks sometimes four feet long; highly esteemed about Philadelphia, where it originated.

Downing's Colossal: A large and very excellent variety; stalks often the size of a man's wrist.

Myatt's Linnæus: The least acid of all, and that not an unimportant matter, considering the present price of sugar.

Cahoon's Seedling: One of the newest varieties, and on some accounts the best.

In conclusion, it may be proper to add that the *leaf* of the rhubarb contains oxalid acid, and is therefore poisonous. The *root* is an active purgative. The *leaf-stalk* only should be eaten.

ASPARAGUS.

Its History, Varieties, Method of Making Beds and Planting, After Treatment, Duration of Beds, Mode of Cutting and Cooking, &c.

No product of the vegetable garden is more highly relished than this, when a taste is acquired for it, and none is more healthful. Yet not one farmer's garden in ten, and in many parts of the country not one in a hundred, contains a single shoot of it. If grown at all, it is but a single stool to furnish wisps for the flies to light upon in the summer parlor. Asparagus as a vegetable upon the farmer's table is still an exotic very rarely found. As a wholesome dish, coming early in the season, when vegetables are much needed, we think it very desirable that it should have a place in every garden in village and country.

NATURAL HISTORY.

Asparagus Officinalis is a perennial plant, a native of the shores of Britain, where it occurs sparingly, and of the steppes in the east of Europe. It is also found in this country in an uncultivated state, and is probably a native of America. We have seen it growing wild upon the shores of Shelter Island, and upon the Connecticut shore, on the opposite side of Long Island Sound. It grows in abundance upon Mason's Island, near the mouth of the Mystic River, and is sometimes gathered in the spring for greens. It is, however, in its native state a small poor vegetable, hardly worth cooking. Its name is derived from the Greek, and signifies a young shoot before it expands. It is in this state when it is cut for the table. Its growth is very rapid. Well established plants, after the weather has become warm, will throw up shoots six or eight inches high in two days.

VARIETIES.

There are two varieties, the red topped and the green topped, according to the books, though we have never met with but one. The young shoots assume quite a variety of colors when they make their appearance, depending somewhat upon the quality of the soil they are grown in. There are several sub varieties named from the places where they are cultivated. But these are simply the result of skill and manure. A deep rich soil, with abundant fertilizers, produces a large kind. Without these the stalks are small.

PLANTS FOR BEDDING.

It is a great saving of time to purchase from the nursery one year old plants for this purpose. But if this is not convenient, procure young seedling plants from an old bed, or sow the seed. The seed is produced in a brilliant red berry, which is three celled, and the cells are two seeded. The seeds are black, and very tenacious of life. They will live through the winter, and come up wherever they are left, as readily as a burdock, or a thistle. Myriads of young plants are found starting from an old bed every season, unless special pains are taken to remove the old tops in the fall.

If the young seedlings are used, take them up in May, when they are an inch or two high, and put them in any rich garden loam in drills fifteen inches apart, and one foot apart in the drill. Select the strongest and most perfect plants for this purpose. If well set, not one in a hundred will fail. If seed is sown prepare the bed as for other vegetables, and put the hills at the same distance apart. Sow early, as soon as spring opens. The young plants are very small when they first come up, looking like so many pins sticking in the dirt. As soon as in sight, the whole surface of the bed should be stirred with a push hoe, to cut up the springing weeds and give the asparagus a start. The young plants should be hoed once a week through the season. This course will make strong vigorous plants, with roots shooting out from the crown like the spokes from the hub of a wheel. The roots will be from ten to twenty inches in length, according to the richness of the soil. In the fall they are ready for

THE BED,

which is the main thing in the cultivation of this plant. It will grow, indeed, in almost any good soil, but it can only be had in perfection from a deep, rich bed. We would choose for it a hill side, sloping to the south or southeast,—next to this the south side of a wall, and lastly an open spot, free from shade above or roots beneath. The plant wants all the soil, and all the sunshine it can command.

Eight square rods, or a plot three rods square, will furnish even a large family a full supply of this vegetable. For so large a plot as this, we would lay the bed out eight rods long, and one rod wide; if convenient, remove all the surface soil, and put it upon one side, to be used again. If the subsoil is a yellow loam, six inches in depth of it may also be saved. If it is clay or gravel, we would take it all out to the depth of three feet. The plant is a gross feeder, and wants three things, drainage, room to grow, and rich congenial food.

These may be secured, of course, by a variety of methods to suit the convenience of the cultivator. For drainage, we would use six or eight inches of oyster shells upon the bottom, and care must be taken that water shall never stand in the bottom of the bed. If the soil is clayey, an outlet must be dug at the lowest corner. If shells are not to be had, small stones, two or three inches through, will answer. Upon these put a layer of bones, one or two inches in thickness, and more if they can be easily and cheaply procured. Our own experiments with bones have led us to attach a high value to them as a fertilizer for this plant. If in the vicinity of the shore, where sea mud and sand can be procured, we would make a compost for the remainder of the bed, composed of one half sea mud, one fourth stable manure, and the remainder of surface soil. If remote from the shore, we would use peat or muck instead of the sea mud. The whole should be well mixed and thrown in upon the bones.

SETTING THE PLANTS.

The old method was to put them in long narrow beds, but this is not important. Stretch your line a foot from the edge of the bed, and with the shovel or spade remove about two inches of the surface on both sides of the line. Then take a plant and spread out all the roots carefully like the spokes of a wheel. Return the soil, leaving the crowns about two inches beneath the surface. Put the plants two feet apart along the line until the whole drill is finished. Stretch the line again at the distance of two feet, and set the plants as before. Eight drills will finish the bed, and the whole number of plants required will be 528. The plants are sometimes set 18 inches apart in the drill, but the shoots will not be so large. If we wanted shoots of extra size we should make the bed deeper, and put the plants three feet apart. We prefer to set the plants in the spring, when the shoots first make their appearance above ground. The roots should not be suffered to dry.

AFTER TREATMENT.

For the first two years after setting the bed, nothing will be required but the stirring of the surface soil, and a bushel or two of salt thrown over in the fall. No cutting should be made until the third spring. The fall before this, as soon as the ground is frozen hard enough to bear the cart, manure should be spread over the whole surface three or four inches deep. We would not put the manure on until the ground is frozen, because it is very important that the soil should be kept as light and spongy as possible. The manure serves as a mulch during winter, and in the spring may be carefully forked in. It is injurious to disturb the roots.

WHITE ASPARAGUS.

If this is wanted, you have only to cover

a part of the bed with sea weed or old straw six inches deep, and cut the shoots as soon as the heads make their appearance. The white stalks are very delicate to look at, but are astringent to the taste, and for our palate are worthless. Yet they are highly prized by some. The only shoots fit for the table are the long green ones, cut just below the surface, and cooked the same day they are cut. The difference between a fresh and stale article is almost as great as with peas and green corn.

CUTTING THE SHOOTS.

The whole bed should be looked over every morning, selecting the shoots that are six inches in length, and cutting them just below the surface. None should be allowed to grow until you are done with the cutting for the season. It is necessary to observe a due moderation in reaping the crop, as the shoots when much cut become progressively smaller and less valuable. Hence it is a general rule with gardeners never to gather asparagus after the peas come into bearing.

DURATION OF A BED.

Managed in this way a bed will last many years, if not for a life-time. There is a bed near us prepared over thirty years ago, and for the last twelve years, with which we have been acquainted with it, it has produced bountifully. We know of another bed, prepared with no special care, that is over forty years old. It only runs out with weeds and neglect. This should be taken into account in preparing a bed. A work that needs doing but once in a life-time, ought to be thoroughly done.

AMOUNT OF PRODUCE.

We have never accurately measured the yield of a bed for a whole season, but from our estimate, based upon our own bed, we should think eight square rods prepared as we have directed, would produce over three hundred pounds a year after the fourth season. This would give about five pounds a day for the sixty days when it is in season. At ten cents a pound, which is the common price by the season, the product of the eight square rods would be worth thirty dollars, and of an acre, six hundred dollars.

VALUE AS A VEGETABLE.

But we would not put this article merely upon a pecuniary footing. It is not only palatable and nutritious, but possesses certain medicinal qualities which make it indispensable in every intelligent and well regulated household. If we can forestall the doctor's bill by taking our medicine unconsciously at our dinners, it will be found both pleasant and profitable. The plant is diuretic, and, by its action upon the kidneys, carries off the matters prejudicial to the system. Its juice contains a peculiar crystalizable substance, which was discovered by Vanquelin and Robiquet, and named by them *Asparagine*. It is hard, brittle, colorless, and in the form of rhom boidal prisms—its taste is nauseous. This decoction of the plant is sometimes used as a diuretic. As a vegetable it is recommended by physicians to all persons afflicted with gravel and urinary diseases. It comes at a season when the system is prone to use this class of medicines from long confinement to salt meats and a spare vegetable diet. The free use of asparagus will often remove the causes of disease. The taste for it is easily acquired, and children are almost uniformly fond of it when it is properly cooked, and this leads us to speak of the most approved method of

COOKING ASPARAGUS.

In the first place, cut off the tough white part of the stalks, so that they shall be of equal length. Put them into small bundles, and boil them from fifteen to twenty minutes, according to their age. The addition of a quarter of a tea spoonful of saleratus to three of water, will preserve the fresh green color of the asparagus. A little salt should be put into the stew pan.

Toast slices of bread enough to cover the bottom of the vegetable dish. Then moisten the toast with a little water from the stew pan and butter it. When the asparagus is taken up and drained, it is to be laid on the toast, and the string removed. Serve with melted butter and salt to the taste.

A good bed of this vegetable is a prize in any garden, and no family, having once enjoyed this healthful luxury, will ever consent to live without it. Prepare a good bed, and you will always be able to gratify that intense longing which we all have in the spring for something fresh and green from the bosom of the earth. Farmers have all the materials for the bed upon their own premises, and the work can be done at any time when the ground is not too deeply frozen. Though bones, and sea mud, and salt are desirable, the plant will do well in rich garden soil and stable manure. We are quite sure that a little labor and capital cannot be put to a better use.

DIGGING HOLES FOR TREES.

To the Editor of the American Agriculturist:

In reading lately an old standard work, ("The American Gardener's Calendar, by B. McMahon," Philadelphia, 1806,) I found some remarks on planting trees, which differ somewhat from those usually given in horticultural works. Allow me to copy a paragraph or two:

"A wide circular hole must be dug for every tree, capacious enough to receive all the roots freely without touching the sides, *but by no means of a greater depth than the natural good soil*; for if you make a deep hole, basin like, into the *clay bottom*, or unfriendly sub-soil, which is too frequently done, and plant the roots therein; *even filling it around with good earth will not do*, for as soon as it pushes its roots beyond this, they must enter into the bad and unfriendly soil, which will not fail to bring on the decay of the most healthy tree, and can never afford it suitable juices for perfecting delicious fruit; besides, the lodgment of water about the roots in this confined basin, in wet seasons, will cause the tree to become sickly, and to get overrun with moss, and full of canker." Page 223.

And again, "Should the earth be rather shallow, so that you cannot cover the roots a sufficient depth with good soil, you must have some hauled for that purpose to where each tree is to be planted, or collected to such places from the general surface, and *bank the roots round* therewith; for there is no alternative between planting them in the good soil, where the roots can take a wide-extended horizontal direction, and lie within the reach of the genial influence of heat, rain, dew and air, and that of an untimely end, if planted too deep." Page 225.

Now these remarks strike me as sensible, and yet they seem to differ from those in Bridgeman and the *Agriculturist* for October, in one respect, viz., the depth of the hole. You recommend the hole to be from two to three feet deep at least. McMahon says: "by no means of greater depth than the natural good soil," and that even filling in with good earth will not do.

I feel some interest in this matter, because I have been setting out some trees this fall. The trees were choice and costly, (Apple, &c.,) and I prepared the holes very carefully, as I thought. I had them dug 4½ to 6 feet across, and 2½ feet deep. The sub-soil is a tough tenacious clay, and the holes held water like a tub. I filled in 18 inches of good earth before I set the trees, and then set them from 1 to 3 inches deeper than when in the nursery—trees from 8 to 15 feet high, 4 to 7 years grafted. Now, if Mr. McMahon is correct, did I not spend money for naught in getting such deep holes dug? The tough red clay below could only be removed with a pick. Have I not injured the trees by providing a basin for standing water? If so, what am I to do? Drain the ground? The ground is a gentle slope, dry except in spring, as clayey grounds generally are. Will drains draw any distance on such soils? I have consulted Munn's work on draining with but little benefit as to the advantage of drains in such a soil.

Perhaps you can give some hints in your valuable paper which will be profitable to me as well as others. I do not want my trees to die, as McMahon predicts they will.

Yours truly, J. G. WILLIAMSON.

Sidney, N. J., Dec. 8, 1856.

CHAPTERS ON GRAPE CULTURE.

BY WM. CHORLTON.

[We present below the first of a series of articles on the culture of a fruit which is rapidly coming into popular use throughout the country. Mr. Chorlton has had not a little *experience* as a grape-grower, both here and in Europe, and he is pretty well known as the author of the Grape Grower's Guide, Exotic Grapes, &c. As there is little to be done with vines at this season, Mr. Chorlton has introduced some preliminary and theoretical matters, with the intention of hereafter attending from month to month to practical details of the treatment of the vines. These articles will be especially adapted to the wants of those who grow grapes on a comparatively limited scale. —ED.

CHAPTER I.

It is quite probable that the garden of Eden contained a grape-vine, and that Adam ate grapes equal in quality to those produced by the cultivators of the present day. We know that some four thousand years ago they were in use, for we find that "Noah began to be an husbandman, and planted a vineyard, and drank of the wine." Further on, it is recorded that the spies Moses sent into the land of Canaan returned with a bunch so large, that "they bare it between two upon a staff." We have also the evidence of trustworthy travelers, that bunches of enormous size are produced in many parts of the world, and we have indisputable authority that grapes of superior quality and size are common in many countries whose inhabitants do not receive much credit for superior skill in cultivation. Now, although we are slow to believe in the fabulous, there is sufficient margin left to show that even our best cultivators have made but little headway towards perfection, or gained much superiority over the original natural products of the

vine. True, we have so far applied skill and science as to get a fair average sample under adverse climatic influences, which is the most we can boast of. Our own "natives" are still almost in their primitive condition, notwithstanding the thousands of acres now under cultivation, and the millions of bottles of sparkling Catawba annually made from the vintages of the great West. The foreign varieties which have now been cultivated under expensive glass structures for the last two hundred years, have, it is true, with the gardener's skill been made to produce fair crops of fine fruit, but in most cases they have been an expensive luxury, when we take into account the cost of thus raising them, including the premature decay and consequent renewal of the vines. I am well aware that these assertions will be considered questionable by some, but facts stare us in the face, and as they stand the test of argument, we may record them.

The excellence of this queen of fruits has rendered it more desirable than most others, and where wealth has been abundant, no expense would deprive the possessor from enjoying this tempting delicacy, providing there was any possibility of securing it. In countries not suited to its natural requirements, the difficulties of cultivation have been surmounted by glass structures and artificial heat, and the desire to satisfy the palate and produce a rarity has so far succeded by skill and experience, that the exotic class of grapes may be had fresh from the vines at all seasons of the year, even in an inhospitable climate. This artificial culture requires the best talent, and much experience; hence the high value which the intelligent and enthusiastic gardener places upon his knowledge and labors. Here there certainly is a great triumph, and so long as moneyed epicures desire such enjoyments, and are willing to pay for them, there will continue to be a supply. But this part of the subject is foreign to the one we commenced with, viz.: to show that we have much yet to learn before we approach perfection in the general culture of the grape, and that in consequence of our ignorance, much time and money are wasted, and still more, the vines themselves are reduced to a weak, unproductive state, if not entirely destroyed.

Observant men are usually free in expressing their opinions, and as the best cultivators have not been lacking in observation, we have had more opinion and dogma, and diversity of experience upon this topic, than on any other in the whole range of horticultural science. If with this multitude of reasonings and great variety of individual conceit, there had been an equal amount of physiological understanding, it is presumed that we should have had by this time the best and truest methods, as commonly understood, as is the growing of a cabbage.

Owing to the failures that have so often been witnessed, many persons have thought that some mysterious skill is required, and have been deterred from making the attempt, further than with the native sorts in out-door culture; while others, being aware of the expense (often worse than useless), have not attempted their cultivation. The first of these preventives is the result of ignorance, and the other is only partially needed. The grape vine, whether it be the Exotic, planted in the grapery, or the Native, grown outside, in any and all its conditions, only requires a soil suitable to its wants, and composed of materials mechanically and chemically formed, to support in a healthy condition, its periodical development and centralizing powers, and a corresponding natural or artificial climate.

To elucidate this matter more practically, let us first notice the Natives, and we shall always find that a free, open and elevated, but sheltered situation, with a well-drained subsoil, or one where the superfluous water can pass off readily, suits them best; there is also a difference in the varieties, some being more tardy in their action and development, which will do best in a warm latitude.

Another class, whose cellular arrangement differs from the former, are more readily excited by warmth, and consequently better adapted to those northern latitudes where we find them in their native state. To successfully cultivate these latter, we must carefully examine the conditions under which they appear to succeed best, and follow nature in our cultivation.

Notwithstanding they are so generally diffused, there are some localities and soils much better adapted to them than others. A calcareous soil, containing much decomposed vegetable matter, will always be found most acceptable, but is not in all cases indispensible.

There are thousands of acres of rocky hill-sides over the country which contain a sufficiency of soil in each of the many clefts and small hollows, for a grape vine. Many of these are now covered with brushwood, of no value, and are incapable of being turned to good account in any other way. Yet here we have some of the very best sites for vineyards, which can be planted with very little expense except clearing, burning and strewing the ashes upon the same ground. In such places the roots delight to run, providing there are a few inches of soil to cover them, for they will lap around and creep under the rocks, and will draw moisture and nourishment out of the stone itself. This is one of the most natural positions for the grape vine, in which, if the most luxuriant growth be not always secured, there will be a good crop of finely flavored fruit, and an absence of some of those diseases that we have often to complain of in a more artificial state of culture. Here the branches may be allowed to ramble over the rocks and inequalities of surface; and, excepting judicious pruning, take their own way, and it needs no poet's eulogy to portray the beauty of such picturesque scenery. One of the greatest errors which is often committed, is planting the grape vine in confined and naturally damp situations, when the plant will never succeed so as to give perfect satisfaction. There may be isolated examples where the reverse seems to happen, but these are only exceptions, and it will generally be found, even here, that there are some modifying influences or peculiar accidental assistance. It may be thought from the foregoing, that we condemn entirely all locations which are not dry and elevated. Not at all—we only mean to state that such are the most natural, and certain to secure constant prosperity and freedom from disease, with highly flavored fruit, which makes the best wine. Even a low spot may be made suitable for raising good table fruit when efficient under drainage is carried out. If the water lies stagnant in the subsoil, chemical action is prevented from going on, and offensive gases do not escape, so that instead of nutriment for the roots to absorb, there is only a poisonous exhalation surrounding them. We would, in this particular, wish to be clearly understood, otherwise examples would seem to contradict our argument, as sometimes a grape vine is found more than usually luxuriant by the side of a stream, or with roots traversing a drain. No doubt many persons have noticed such instances, but it must be borne in mind that in these, decomposition of the material, in which the roots are found, is constantly going on, and fresh food continually provided. Reasoning from such extremes has nothing to do with general principles. Nature, to our dim vision, sometimes takes very singular freaks, which, to a superficial mind, may seem to demonstrate a constant reality; but while we are possessed with sufficient practical information, which will lead to success, we should advise only a pursuit of that which is knowu as certain, leaving exceptions to experimenters.

[*To be Continued.*]

THE AGRICULTURAL PRESS ON HORSE-RACING AT FAIRS.

We are glad to see that our cotemporaries have used as great plainness of speech upon this subject as ourselves. Lieutenant-Governor Brown, of the New England Farmer, has an elaborate article upon the subject, lamenting the introduction of the track, and warning his readers against patronizing this innovation. He doubts whether the track has added any permanent pecuniary advantage to any society. He mentions a county society that paid $3,000 for preparing a track, and received only $1,400 at the Fair. In this case, too, there was nothing to be seen from the farm, but neat stock and swine.

There can be no doubt in the mind of any candid observer, that the tendency of the racing is to divert the minds of all who come to the fair from the legitimate objects of the exhibition. Plodding oxen, stupid swine, and patient lambs, will stand a poor chance even for a glance, while the nobler quadruped is showing off his speed, at the rate of 2:40 or less. The excitement and the gambling which invariably accompany these trials of speed, even under the best regulations, are as prejudicial to good morals as they are to good husbandry. Fast horses are not wanted upon the farm. Strong, kind, well broken animals, that can travel six or eight miles an hour for four or five hours upon the stretch, are much better than the nags of the race course.

Among others, the following papers have spoken against this practice: We notice the *Country Gentleman*, the *Massachusetts Ploughman*, the *Ohio Cultivator*, the *Scientific American*, the *N. Y. Times*, the *N. Y. Tribune*, *Rural New Yorker*, and the *Prairie Farmer*. This last paper, in speaking of the Wisconsin State Fair, says, that "gentlemen in that region have decided to withdraw their countenance and influence from horse races, and will exhibit no more stock nor farm products at any fair where jockeyism prevails." This, we are persuaded, is the strong feeling among the mass of our farming population.—[Ed.

Cranberry Culture.—The only treatises on this subject which we can now call to mind, aside from short newspaper articles, are a small volume by Eastwood, recently published by C. M. Saxton & Co. (fifty cents), and a full and excellent chapter in the Annual Report of the Secretary of the Massachusetts Board of Agriculture for 1853. This chapter was reproduced entire in the first four numbers of our twelfth volume. We have none of the loose numbers, but can supply a few sets of the entire volume—bound, $1 50; unbound, $1 00.

Plants are offered for sale in our advertising columns.

For the American Agriculturist.

BREAD-MAKING—MY FIRST LOAVES.

BY A LADY CONTRIBUTOR.

How oft the incidents of youthful days recur to memory—called up from the silent chambers of the past by association with some current event. Just now a trivial matter brought back very vividly a brief chapter in my girlhood's experience, which I will note down with the hope that it may give a useful hint to some of my younger sisters.

One Friday evening my step-mother said to me: "Sarah, as I shall be very busy to-morrow, I would like to have you make the bread; and, as your father is anxious to know what advancement you are making in domestic affairs, you may take entire charge of raising it."

Dear me, thought I; why cannnot Bridget help bake? it is only to keep me under her own eye, for I was always jealous of my step mother's motives, but I only answered, "I will be down early in the morning and attend to it."

"But your sponge must be set to-night, Sarah."

"To-night, mother! Do you make bread over night?"

"Yes, in cool weather I do;" and smiling, she added, "perhaps you will find there are some other points about it you do not quite understand, before your father pronounces you a good bread maker,".

"Well, I suppose you will tell me, or Bridget will," I answered pettishly; for I was ashamed to acknowledge that I could not set the sponge without instruction.

"I do not think Bridget can give you much information about it, at least I have never trusted her to make bread, for she, like most of her class, seldom adheres to rules closely enough to have uniformly good bread;" and she proceeded without further asking: "Sift the flour, it will be easier to handle, and will rise quicker than if it is in lumps from the close packing in the barrel. Make a sort of nest in the centre, large enough to hold a quart, into which throw a spoonful of salt, and then fill the cavity with boiling water."

Why, mother!" I exclaimed, "I spoiled a whole batch of bread by wetting it up with *boiling* water before you came to our home."

"Very likely,—but I only fill the cavity or nest with it; by doing so you harden the sides, so that they will not fall into the sponge until it is ready to be mixed. The heat of the water just warms the rest of the flour sufficiently to preserve the right temperature through the night. When it has cooled so that it will not scald, put in a gill and a half of yeast, for an ordinary baking, and stir in a little flour, but be careful not to disturb the sides with your spoon. Place the moulding-board over the tray, and cover it snugly with the bread cloth, as it is very necessary to keep it warm."

"Well, I declare, there are as many rules as there are in a grammar lesson," I replied in no very pleasant mood.

"And quite as important for a good result," she mildly but firmly answered.

I was irritated,—for a plan of mine for the evening was upset; but I resolved to follow her directions to the letter, so that if the bread was not good it should be her fault and not mine. I was, besides, quite anxious to please my father, who was very particular in regard to good bread.

In the morning I hastened down to the kitchen, but mother was there before me. When I lifted the cover from the bread-tray the surface appeared to be covered with beds of foam; and as I turned to ask mother if it looked right, she said: "You have so far been very fortunate—it is ready for mixing. Now add about three pints of warm water, with a teaspoonful of saleratus or soda, dissolved in it, work it well together, set it by the fire, a little out of the draft, and it will be ready for moulding soon after breakafst."

I did as she directed, though annoyed by her close watching; for I then thought she loved to rule—now, I know that care is necessary.

Shortly after breakfast, or about two hours after mixing the bread, I entered the kitchen and found mother beating eggs and sugar for her cake. As I lifted the cover, she pressed her finger upon the bread, it yielded quickly to the pressure, and as quickly the impression closed. "That is a sign of lightness, it will be easy to mould," she remarked; and I have often observed since, that light bread helps to mould itself, as a good bright needle seems to sew for you. I soon had it in the pans, following the rule to mould till it cleaves from hand and board. The oven was in good order,—for Bridget, like myself, was following directions. While the baking proceeded, I assisted mother with the cake; and as the last loaf, with its light brown and crispy crust, gave out its pleasant odor, I bade the kitchen good bye for the day. I was relieved from anxiety about the bread, until I saw father returning from church the next morning in campany with Prof. Wilbur. Then, I was sure the bread would be discussed.

Dr. S. gave us a very interesting discourse this morning," remarked father, soon after their entrance, "upon the preparations for the Sabbath among the Israelites. His text was: 'Bake that which ye will bake to-day, and seeth that ye will seeth.'"

"Yes," replied the Professor; "I was interested in his explanations and comments upon their baking; for, you recollect, they gathered their bread already prepared."

I looked at mother, and as I caught her eye, I saw she understood my wish—that we could gather ours in that way At the table the subject was resumed; and soon came the remark from Prof. W., "I seldom find home-made bread in the city, Mrs. S., you must be highly favored in your cook." Mother evidently wishing to evade any further remarks on my account, replied: "That she considered it a very important article of diet either in country or city, in consideration of family health." I trembled, for I saw father had caught my secret, and I knew he would not consider my blushes. "Well done, Sarah, you have won the laurel, this is excellent bread. You must send your receipt to Mrs. Smith, who says her girls spoil all the flour they touch." I left the table, for I could not "sustain the honors." I forgot, from that day, that my father's wife was my step-mother; and as she entered the sitting-room a few moments after, I kissed her as kindly as she had watched over me and my first bread-making, and the green-eyed monster, jealousy, never resumed her former place in my mind.

CONCEIT.—The improving man may start in life with a great stock of conceit, but it grows less and less as his knowledge increases.

You may gain knowledge by reading, but you must separate the wheat from the chaff by thinking.

Keep your temper in dispute. The cool hammer fashions the red hot iron.

Stockings that need darning look worse than darned stockings.

WHERE IS TIMOTHY BUNKER, ESQ.

Last month, Espuire Bunker promised to furnish his "notions" direct from headquarters, if we were bound to have them, and so we neglected to send our special reporter to Hookertown. He will be up that way before next month, if Mr. Bunker don't speak for himself in season.

BOOKS.—Notices of new Books will appear in our next.

THE GOAL REACHED, AND NOT REACHED.

Towards the close of last year, we set down two objects to be accomplished: first, to start this year, and continue through it, with just the best paper in the country; and, second, to very greatly enlarge its sphere of usefulness by advertising and other agencies The latter point has been *fully* gained, and we have even exceeded our highest hopes in this respect. But a great increase of subscribers, and consequent increase of business—far beyond what he had provided for—has prevented our accomplishing much that we had proposed in the Editorial department.

We have secured the assistance of several new *editorial* contributors, who have not all got the harness fitted on yet—the best *thinking, practical* men, are not always the most ready writers. But these matters will soon be adjusted, and we shall be able to introduce a still greater variety of plain and practically useful articles, as well as of original illustrations.

SUNDRY MATTERS.

We have no disposition to implead our readers to go out of their way to promote the circulation of this journal for our sake, though we know many friends who have often done this, and we are duly thankful therefor. The Agriculturist has fully paid its own way, and we commence a new year free of all incumbrance, with a large paying list of subscribers, and a little surplus for any casualty. Our ambition is to make this paper just as valuable as possible, and we care little for the specific amount of pecuniary profit it may afford, though we have in view a certain capital farm which we hope ultimately to call our own, if the profits of our labors in our present sphere shall ultimately suffice to accomplish that end.

Those of our readers who believe their friends and neighbors will be benefitted by perusing the pages of this paper from month to month, will, we trust, use their efforts to enlist them as readers the present year, for their own good.

We find upon our books over FOUR THOUSAND Post-offices where there is now not a single subscriber. Would not a new spirit of improvement be awakened in the neighborhood of all such offices, if each of these single subscribers should by a little effort increase the number of readers of the Agriculturist to half a dozen, or a dozen, or more?

We have provided a large extra edition of the December number, one of which will be furnished free to new subscribers for the past year, so long as we have them. The extra November edition was all exhausted by Baker's Dozen subscribers, some two weeks since. The type of this (January) number will be kept standing as long as possible, and then such extra editions be struck off as may be likely to be called for afterwards.

Business Notices.

GOOD BOOKS FURNISHED.

We are continually asked about books on various subjects, where they are to be got, price, &c. The following are very good if not the best in the several departments: American Farm Book, a plain, comprehensive practical treatise on the various crops, and farm operations generally—$1. Buist's Family Kitchen Garden—75 cts. Allen's Rural Architecture—$1 25. Quinby's Mysteries of Bee Keeping Explained—$1. Chorlton's Grape Grower's Guide—60 cts. Eastwood's Manual for cultivating the Cranberry—50 cts. The Stable Book—$1. Dadd's Horse Doctor—$1. Norton's Scientific and Practical Agriculture—60 cts. Nash's Progressive Farmer—60 cts. Stockhardt's Chemical Field Lectures—$1.

We do not solicit orders, nor make book-selling a part of our business, but when any of our readers desire any one of the above named books, or any other agricultural or horticultural work, which they can not get conveniently near at hand, they may send the price to this office, and we will see that the book or books desired are mailed to them, post-paid.—*Publisher of Agriculturist.*

EXPIRATIONS OF SUBSCRIPTIONS.

When the time paid for by any subscriber expires a printed notice is sent to that effect in the last paper forwarded. Nearly all those "whose time was up" at the close of 1856, have already renewed. The few exceptions may not have observed the printed slip in the December number. Any one receiving this number with a red mark around *this* paragraph, will understand that their subscription expired in December, and that notice to that effect was then forwarded to them, but no renewal has reached us.

MINNESOTA.

Particulars regarding the rising Town of NININGER and vicinity can be obtained of G. O. ROBERTSON or CALEB ADAMS, No. 135 Water-st., New-York.

BACK VOLUMES AND BACK NUMBERS.

A very few complete sets of Volume XV, have been secured which may be had bound for $1 75, and unbound, $1 25.

Volumes XII, XIII and XIV, can be had for $1 50 each, bound, or $1 unbound. Postage on unbound volumes 26 cents each. Bound volumes, not mailable.

Volumes XII, XIII, XIV and XV, uniformly bound, will be furnished for $6. The same unbound, $4.

We have sundry *odd* numbers of Volumes, XI to XIV. These will be sent free to those wishing to complete their volumes for binding.

Of Volume XV, we have several copies of October, November, December, 1855, May, June, September, October and December, 1856, (Nos. 1, 2, 3, 8, 9. 12, 13 and 15, of volume XV) and a very few of July (No. 10.) Any *one* of these will be sent to subscribers post-paid, on the receipt of *three* 3-cent stamps.

We shall be very glad to get a few perfect copies of the issues for January, February, March, April and August, 1856. For any one of these numbers we will pay 15 cents cash.

Advertisements.

TERMS—(invariably cash before insertion):

Fifteen cents per line (of ten words) for each insertion.

No advertisement taken at less than one dollar.

By the column or half column, $17 per column for the first insertion and $14 for each subsequent insertion.

Advertisements are estimated according to *amount* of space occupied.

☞ Business Notices 25 cents a line.

Advertisements to be sure of insertion must be received at latest by the 20th of the preceding month.

We now print over 15,000 copies per month, which makes the price of advertisements only one cent a line per 1,000 of circulation.

Agricultural Headquarters. 1857.

IN OUR NEW AND COMMODIOUS rooms, No. 140 Fulton-st., New York, are to be found the latest Agricultural Books and Periodicals, American, English, French and German.

The number of works on Agriculture published by us is now greater than that published by any other firm in the world, and we are continually adding to our list.

All interested in Agriculture are invited to send us their names and address, that we may furnish them with our Catalogue, and from time to time such other documents as may prove interesting to them.

Books sent by mail, post-paid, on receipt of price.

C. M. SAXTON & CO.,
120n145 Agricultural Book Publishers, 140 Fulton-st., N. Y.

CRANBERRY PLANTS.

BEARING PLANTS OF THE BELL variety of Cranberry, the best for general cultivation, Prices, 50 cents per 100; $4 per 1,000; $15 per 5,000 plants.

UPLAND CRANBERRY.—An entire new variety from Newfoundland, smaller Berry, but more prolific, and not as acid as the common Berry, at $1 per 100 plants.

F. TROWBRIDGE,
120-122n140 Dealer in Trees, Plants, &c., New Haven, Ct.

THE LAWTON BLACKBERRY is the queen of all berries—of most magnificent proportions, exquisite flavor, and delicate texture.—*Springfield Mass. Republican, Sept* 4, 1855. Address, WM. LAWTON, New-Rochelle, N. Y., or No. 54 Wall-st.

N. B.—Plants will be furnished at a reduced rate to societies and clubs. 120—tfn147

DIOSCOREA BATATAS—NEW CHINESE POTATO OR YAM.

THE EXPERIENCE OF ANOTHER season in the cultivatton of this *new esculent* warrants us in confirming all we said in relation to it last year. Wherever it has fallen into the hands of judicious cultivators, and received the care necessary to its full development the result has been entirely satisfactory in all respects; and it may confidently be re-affirmed, that "of all the esculents proposed as substitutes for the diseased potato, the Dioscorea Batatas is certainly the *only* important one." We can now supply small roots from four to nine inches long, carefully packed for transport at $8 per dozen; and small seed tubers (such as we sold last season), at $1 per dozen, or $7 per hundred; these latter can be sent by mail. Description and directions for culture furnished with each package. Where practicable, parties are invited to examine the roots before purchasing, as *we have them constantly on view.*

NEW CHINESE NORTHERN SUGAR CANE.—Seed of this celebrated and invaluable plant in packets, at 12½ cents each (prepaid by mail, 25 cents), or 75 cents a pound.

CHUFAS, or EARTH ALMONDS, $1 per 100; JAPAN PEAS, 50 cents a quart; NEW ORANGE WATER MELON (true); CHRISTIANA MUSK MELON, KING PHILIP CORN, SWEET GERMANY TURNIP, etc., etc., with the largest and most comprehensive assortment of VEGETABLE, FLOWER and FIELD SEEDS to be found in the United States. Catalogues on application.

JAMES M. THORBURN & CO., Seedsmen.
120n141 No. 15 John-street New York.

HORTICULTURAL TOOLS—A full assortment of Hedge and Vine Shears, Pruning Knives, Hoes, Rakes, Cultivators, Trowels, Forks, Watering Engines, &c. &c.

PLOWS—A large variety of patterns, among which are the most approved Sod, Stubble, Side-hill, Double-mold, Sub-soil, Lock Coulter, Self-Sharpener, &c.

CARTS AND WAGONS—With iron and wood axles, on hand or made to order, in the best and most service able manner.

LITTLE GIANT and other Corn and Cob Crushers.

For sale by R. L. ALLEN,
189 and 191 Water st., New-York

NURSERY STOCK.

THIRTY THOUSAND GRAFTED APple trees—one year old.
5,000 Peach Trees.
10,000 Anger's Quince.
10,000 Apple Seedlings.

The above will be sold very *low* for cash.

WILLIAMS & CHAPMAN, Nurserymen,
120n138 Fayetteville, Onondaga Co., N. Y.

GREEN SAND MARL OF NEW-JERSEY.

THE NEW JERSEY FERTILIZER COMPANY is now prepared to receive orders for this important Manure. For all lands upon which ashes are beneficial, the MARL is more than a substitute. Professor Cook, in his Annual Report to the Legislature of New-Jersey, says:

"The value of these MARLS is best seen in the rich and highly cultivated district which has been improved (*almost made*) by their use. But it may be interesting to examine the causes of their great value in agriculture, and to compare them with other fertilizers. For example: The potash alone may be taken, at an average, as five per cent. of the whole weight of the MARL; a bushel, when dry, weighs eighty pounds; and in the proportion mentioned, would contain four pounds of potash; This is nearly as much as there is in a bushel of *unleached wood ashes.*"

And again: "It is probable that the great value of the MARL is to be found in the fact that it contains nearly all the substances necessary to make up the ash of our common cultivated plants."

Price delivered on board vessel at the wharves of the Company at Portland Heights, Raritan Bay, New-Jersey, seven cents per bushel.

For further particulars, see Circular, sent *free* of *postage.* Orders for other fertilizers will receive prompt attention. Address either of the undersigned.

CHAS. SEARS, President,
Riceville Post-Office, N. J.
TAPPAN TOWNSEND, Treasurer,
No. 83 Nassau-st., New-York.
GEO. W. ATWOOD, Secretary,
120n No. 16 Cedar-st., New-York.

NEW CANAAN NURSERIES—Three and a half miles from the Danbury and Norwalk Railroad depot.—The subscribers are prepared to offer the largest and best assortment of Nursery stock the coming season, they have ever had, consisting of 50,000 Apple trees, three and four years from the bud or graft; 40,000 Peach trees, one year from the bud; Cherry trees, Pear trees, standard and dwarfs. Also, a general assortment of Evergreens and other ornamental trees.

N. B.—We would particularly invite the attention of persons wishing to purchase largely, to our stock of Apple and Peach trees. STEPHEN HOYT & CO.
New Canaan, Ct., Oct., 1850. 120-122

LAWTON BLACKBERRY PLANTS

The Subscribers announce to their friends and customers that they have now

OVER SIX ACRES
of the
GENUINE LAWTON
BLACKBERRY PLANTS

under cultivation, and in good condition.

They are therefore prepared to fill large orders the coming FALL and the following SPRING.

PRICES.

$25	per	Hundred plants.
$12 50	per	Fifty plants.
$5	per	Dozen plants.
$2 50	per	Half dozen plants.

N. B. All plants ordered of us will be TAKEN up and PACKED with the GREATEST CARE; and UNDER OUR OWN PERSONAL SUPERVISION.

Of the MANY THOUSANDS sent out by us last year we have heard very few instances of ailure, notwithstanding that they have been forwarded to EVERY PART OF THE COUNTRY, and the setting out has often been entrusted to unskillful hands. Printed directions for setting and cultivating are sent with every package.

GEORGE SEYMOUR & CO.,
South Norwalk, Conn.

NEW-ROCHELLE (LAWTON) BLACKBERRY—Genuine Plants for sale on liberal terms by the subscriber. SIMEON LESTER,
Can apply for information at J. W. LESTER'S, No. 161 Water-street. New-Rochelle, Westchester Co., N. Y.
116-121n104

BERKSHIRE PIGS FOR SALE AT EDWARD WAIT'S, Montgomery, Orange County, N.Y.

Three pairs about three months' old, very fine.

Two boars about six months' old, very good.

All the above is from good stock, crossed with Lewis G. Morris' stock. 120n14

WYANDOT PROLIFIC CORN.

THE GREATEST AGRICULTURAL wonder of the age. Its discovery worth millions to the country. Yield 150 bushels to the acre, (some say 200.) Plant only one kernel in a hill, each kernel will produce from three to 12 stalks, 10 to 12 feet high, 4 to 20 ears, 8 to 14 inches long, 10 to 16 rows, of beautiful pearl white corn. Seed selected with care, warranted genuine, put in a parcel sufficient to plant an acre. Price $1 50, delivered in New-York City. Money or P. O. stamps must accompany the order, with directions how to send.

Those who order sent by mail, and remit $4, will receive, post paid, a parcel to plant an acre; $2, half an acre; $1 quarter of an acre. Orders for less double the above rates. Circulars showing the result from different parts of the Union, will be sent to all who send them. Address to J. C. THOMPSON, Tompkinsville, Staten Island, N. Y. 119-123n133

PERUVIAN GUANO—*At lowest market prices*, wholesale and retail—with Government weight and brand on each bag, for sale at the

AGRICULTURAL IMPLEMENT AND SEED Warehouse of R. L. ALLEN,
Nos. 189 and 191 Water-st., New-York.

ALLEN'S CELEBRATED MOWING MACHINE *CANNOT CLOG.*

NEW-YORK AGRICULTURAL WAREHOUSE AND SEED STORE.

FARMERS AND MERCHANTS WILL find at my Warehouse every Implelement or Machine required on a PLANTATION, FARM, or GARDEN. In addition to the foregoing, I would all attention to the following, among many others:

VEGETABLE CUTTERS and VEGETABLE BOILERS, for cutting and boiling food for stock.

BUSH HOOKS and SCYTHES, ROOT-PULLERS, POST-HOLE AUGURS, OX YOKES, OX, LOG and TRACE CHAINS.

Grub Hoes,	Picks,	Shovels,
Spades,	Wheelbarrows,	Harrows,
Cultivators,	Road-Scrapers,	Grindstones,
Seed and Grain Drills,	Garden Engines.	

Sausage Cutters and Stuffers, Garden and Field Rollers, Mowing and Reaping Machines, Churns, Cheese Presses, Portable Blacksmith Forges, Bark Mills, Corn and Cob Crushers, Weather Vanes, Lightning Rods, Horticultural and Carpenters' Tool Chests.

Clover Hullers,	Saw Machines,	Cotton Gins,
Shingle Machines,	Scales,	Gin Gear.
Apple Parers,	Rakes,	Wire Cloth,
Hay and Manure Forks,	Belting for Machinery, &c.	

R. L. ALLEN,
189 and 191 Water-st., New-York.

Ingersoll's

Premium Portable

HAY PRESS.

THIS PRESS combines greater power and portability, requires less labor, occupies less space, and costs less money, than any other machine for baling hay ever offered to the public.

It is equally convenient for pressing cotton, hemp, hops, broom corn, rags, husks, &c. Samples may be seen at our warehouse, and circulars, with cuts and full descriptions, will be furnished upon application, by letter or otherwise, to

FAIRBANKS & CO., Scale Manufacturers,
120-122n146 No. 189 Broadway, New-York.

ALLEN'S IMPROVED MOWER, AND MOWER AND REAPER—the best in America.

A large assortment of the most approved Agricultural and Horticultural implements, of good quality and at low prices,

For sale by R. L. ALLEN,
109— 189 and 191 Water-st., New-York.

HORSE POWERS AND THRESHERS.—I have for sale the best and most approved made in the United States, viz:

Allen's celebrated one horse endless chain power.			
Emery's Patent	do	do	do
Allen's celebrated two	do	do	do
Emery's patent two	do	do	do

Trimble's one to four horse iron circular power.

Warren's	do	do	do	do

Eddy's or Tasslin's superior wood and wrought iron one to six horse circular power.

Hall's or Pitts one to eight horse iron circular power, much used in California and other Western State

THRESHERS.

Allen's or Emery's Threshers with or without Separators.
Eddy's Iron Cylinder Threshers.
Hall's or Pitts and other make Threshers and Cleaners combined, for two to eight horses.

R. L. ALLEN, Nos. 189 and 191 Water-st.

HO FOR THE WEST.

A DESIRABLE PLACE TO GO TO.

Attention is respectfully called to the special advantages of

NININGER AND VICINITY,

MINNESOTA TERRITORY.

Farmers, mechanics and others, especially those having but limited means, who are seeking a pleasant Western home, will find in Minnesota Territory, and especially in and around the new and rising town of Nininger, one of the most desirable locations.

Nininger is beautifully situated on the west bank of the Mississippi, twenty-five miles below St. Paul, and, although only about four months old, there are already forty houses built, and about three hundred inhabitants. Improvements of all kinds will continue to be vigorously prosecuted, as lots have been sold, on liberal terms, conditionally that several hundred thousand dollars worth of improvements be erected within two years.

The landing is one of the finest on the river, and a steam ferry boat (which will be free) is to be on the station next Spring. There is a vast extent of easily-cultivated choice farming land all around, much of it already thickly settled. There is plenty of timber and water. The dreaded ague is a stranger in this region, and the climate is delightfully invigorating. On the town site, and in its immediate vicinity, there is excellent building stone, and clay for making bricks, and the lime made here being very superior, is already in demand at other towns on the river. Large hotels, churches and schools, an athenæum, unsurpassed saw-mills of great capacity, substantial stores and numerous dwelling-houses are to be built next Spring, and, as the principal depot of the Minnesota Emigrants Aid Society is to be at this point, where the journal in connection with it is to be established, the probability is that parties who arrange to commence business here will succeed well. Town lots are comparatively cheap yet, but a ny advance soon, as the healthiness and general advantages of the Territory are rapidly being appreciated.

For further information regarding Nininger City, apply, by letter or otherwise, to any of the undersigned.

Louis Loichot, Postmaster, Nininger, M. T.
Samuel G. Sloan, St. Paul. M. T.
Andrew Levering, St. Paul, M. T.
Hancock & Thomas, Minneapolis, M. T.
Louis Faiver, Louisville, Stark County, Ohio.
Charles E. Clarke, Springfield, Ohio.
George B. Clitherall, Newbern, N. C.
Thomas B. Winston, New-Orleans, La.
Ignatius Donnelly, No. 108 Walnut-st., Philadelphia.
Philip Rohr, No. 12 Powell-st., Philadelphia
Isaac Bernheimer, No. 199 Broadway, New-York.
G. O. Robertson, No. 135 Water-st., N. Y.

N. B.—A company of upwards of one hundred persons leave Philadelphia for Nininger on the 1st of May, 1857, and would be glad of any additions to their number. 120-n142

NEW-YORK WEEKLY TIMES,

A LITERARY AND NEWS JOURNAL FOR THE FAMILY AND FIRESIDE.

The Cheapest Newspaper in the United States.

UPON THE TERMINATION OF THE Presidential contest, now close at hand, the proprietors of the NEW-YORK WEEKLY TIMES intend to introduce various and extensive changes in its character, which will render it still more attractive to the great mass of the people of the United States. Its columns will then be less exclusively occupied by political news and discussions, and will be much more largely devoted to LITERATURE, GENERAL NEWS, and MISCELLANEOUS READING. It will be made emphatically and especially a

NEWSPAPER FOR THE FAMILY AND THE FIRESIDE

Containing Literary Tales, Original and Selected; Biographical Notices, Sketches of Character, Letters fiom Abroad, Anecdotes, and generally whatever will be most entertaining and most instructive to the great mass of Newspaper Readers.

Among the conspicuous attractions of the WEEKLY TIMES will be

AN ORIGINAL NOVEL,

By a Popular American Author, written expressly for its columns, and abounding in interest and merit. This will be published in successive numbers, commencing about the 15th of November, and will probably be completed in six months.

The WEEKLY TIMES will also contain a series of

LETTERS FROM EUROPE AND THE EAST,

By one of the ablest and most Popular writers in the United States,—embracing Notes of Incident, Adventures and Observation in Europe, Egypt, Arabia and the Holy Land, and forming one of the most interesting series of Foreign Sketches ever published in this Country.

Besides these continuous articles, prepared expressly for the New Series of the WEEKLY TIMES, it will contain, every week, a great amount of

ORIGINAL CORRESPONDENCE, DOMESTIC AND FOREIGN.

MISCELLANEOUS LITERARY ANECDOTES AND SKETCHES.

NOTES OF SCIENTIFIC DISCOVERY.

BIOGRAPHICAL AND CRITICAL NOTICES.

REVIEWS OF NEW AND VALUABLE BOOKS.

CHOICE POETRY, Original and Selected, &c., &c., &c., &c.

In short, it is the design of its Proprietors to spare neither expense nor labor in making it the *most interesting and desirable miscellaneous* FAMILY NEWSPAPER *in the United States.*

In addition to its Literary and Miscellaneous character the WEEKLY TIMES will give, in a clear and condensed form

ALL THE NEWS OF THE DAY.

From all quarters of the world, and in all departments of activity,—embracing

AGRICULTURAL, COMMERCIAL AND FINANCIAL INTELLIGENCE.

Prepared expressly for its columns, and for the use of those in all parts of the country who wish to be kept informed upon all these topics.

THE DOINGS OF CONGRESS,

With a synopsis of all important documents, valuable speeches, and the proceedings of the several State Legislatures.

FOREIGN NEWS.

As given in the Letters of Special Correspondents, and in extracts from the Newspaper Press of England and the Continent:—and

THE MISCELLANEOUS NEWS

Of Accidents, Crimes, Disasters, Personal Movements, &c., &c. both at home and abroad.

The WEEKLY TIMES will also contain EDITORIAL ARTICLES discussing all the leading events of the day, in such a manner as shall promise to be most widely useful and instructive. In its political department the TIMES will be

WHOLLY INDEPENDENT OF ALL POLITICAL PARTIES,

Speaking freely and boldly its own Opinions,—condemning Public men and Public bodies for whatever may be wrong, and upholding and sustaining them in whatever may tend for the advancement of the public good. It will advocate equal and exact justice to all men,—the preservation of the Union upon the principles of the Constitution, and the improvement of the condition of all classes by Education, Morality and Religion. It will wage no war upon any section, nor countenance any infringement of the constitutional rights of any portion of our common country. But it will also resist all attempts to subordinate the general good to sectional ambition, or to undermine those great principles of Human Liberty which form the basis and foundation of our Republican institutions. It will be moderate but firm in its tone,—seeking to convince rather than intimidate, respectful toward those who differ from it, conservative in its tendency, and devoted zealously and steadily to the aelevation and advancement of the people.

The WEEKLY TIMES will be printed upon handsome paper, in clear type and in elegant style—each number containing *eight* pages, or *forty-eight* columns—presenting every week a larger amount of choice Reading and News than can be obtained elsewhere at the same rate. It is designed to make it at once

THE BEST AND CHEAPEST FAMILY NEWSPAPER IN THE UNITED STATES.

It will be sent to subscribers by mail at the following rates:

One Copy, one year, for.....$2
Five Copies, one year, for..... 5
Twenty-Five Copies, one year, for.....20

Each package must in every case be *sent to one name and address.* Any Postmaster, clerk. or other person, who may send us TEN or more subscribers on the above terms, and who will receive the package for distribution among the subscribers' *shall receive an extra copy.* Additions may at any time be made to Clubs by the party in whose name the Club stands, and on terms of first remittance.

Postage on the WEEKLY TIMES is:
To Canada, payable in advance.....36 cents a year.
Within the State.....13 cents a year.
Within the United States.....26 cents a year.

The NEW-YORK DAILY TIMES is a very large, first-class Daily paper, containing all the News of the day, &c., &c., which is sent to Subscribers by mail at SIX DOLLARS PER ANNUM.

The NEW-YORK SEMI-WEEKLY TIMES, published twice a week, and containing all the reading matter of the Daily, is sent to Subscribers at the rate of THREE DOLLARS per annum. Two Copies to one address for FIVE DOLLARS.

Payment in all cases is required invariably in advance; and no papers will ever be sent until the receipt of the money.

All letters inclosing money, or on business of any kind with the office, to be addressed to the Publishers,

RAYMOND, WESLEY & CO.,
No. 138 Nassau-st., New-York.

NEW-YORK, Oct. 1, 1856.

Prospectus for 1857.

THE SATURDAY EVENING POST.

Established Aug. 4th, 1821.

THE PUBLISHERS OF THIS OLD and firmly established paper take pleasure in calling the attention of the public to their programme for the coming year. Surfeited with politics, the claims of literature will be more than ever appreciated by the reading world. We have therefore already made arrangements with the following brilliant list of writers:—

WILLIAM HOWITT, (*of England,*) ALICE CARY, T. S. ARTHUR, MRS. SOUTHWORTH, AUGUSTINE DUGANNE, MRS. M. A. DENISON, *the author of "ZILLAH,"* &c.

We design commencing in the first number in January next, the following original Novelet:—

TALLENGETTA, OR THE SQUATTER'S HOME.

By WILLIAM HOWITT, author of "Rural Life in England," "Homes of the Poets." &c., &c.

This is a STORY OF AUSTRALIAN LIFE, Mr. Howitt having visited Australia expressly with the object of acquainting himself with the novel and romantic aspects under which nature and society present themselves in that singular region.

The following Novelets will then be given, though probably not in the exact order here mentioned:—

THE STORY OF A COUNTRY GIRL.

By ALICE CARY. An original Novelet, written expressly for the Post.

THE WITHERED HEART.

An original Novelet, written expressly for the Post, by T. S. ARTHUR.

LIGHTHOUSE ISLAND.

An original Novelet by the author of "My Confession," "Zillah, or the Child Medium," &c.

THE QUAKER'S PROTEGE.

An original Novelet, by Mrs. MARY A. DENNISON, author of "Mark, the Sexton," "Home Pictures," &c.

THE RAID OF BURGUNDY.

A TALE OF THE SWISS CANTONS. An original Novelet, by AUGUSTINE DUGANNE, author of "The Lost of the Wilderness," &c.

We have also the promise of a short and condensed

NOVELET, by Mrs. SOUTHWORTH,

to run through about SIX or eight numbers of the Post.

☞ In addition to the above list of contributions, we design continuing the usual amount of Foreign Letters, Original Sketches, Choice Selections from all sources, Agricultural Articles, General News, Humorous Anecdotes, View of the Produce and Stock Markets, the Philadelphia Retail Markets, Bank Note List, Editorials, &c., &c., our object being to give a Complete Record, as far as our limits will admit, of the Great World.

ENGRAVINGS.—In the way of Engravings, we generally present two weekly—one of an instructive, and the other of a humorous character.

The Postage on the Post to any part of the United States, paid quarterly or yearly in advance, at the office where it is received, is only 26 cents a year.

TERMS (Cash in advance)—Single copy $2 a year.

4 copies.....$5 00 a year.
8 copies, (And one to the getter up of the Club,)....10 00 a year.
13 copies, (And one to the getter up of the Club,)....15 00 a year.
20 copies, (And one to the getter up of the Club,)....20 00 a year.

Address, *always post paid,*

DEACON & PETERSON,
No. 66 South Third-street, Philadelphia.

☞ SAMPLE NUMBERS sent gratis to any one, when requested.

☞ TO EDITORS.—Editors who give the above one insertion, or condense the material portions of it, (the notices of new contributions and our terms,) for their *editorial* columns, shall be entitled to an exchange by sending a *marked* copy of the paper containing the advertisement or notice. 119-120n129

AGRICULTURAL ENGINEERS.—The undersigned, having long experience as Engineers, will pay attention to those branches of their profession connected with Agriculture, viz: Land Surveying and Mapping, the arrangement and construction of houses and farm buildings.—DRAINING and IRRIGATION in all their branches. Also, the adaptation of all machinery necessary for agricultural purposes, including steam engines, wind and water mills, water rams, force pumps, &c. Materials and machinery purchased on commission. SHIPMAN & HAMMOND,
111—121n48 No. 63 Trinity Buildings. 111 Broadway, N. Y

WILLARD FELT, No. 14 Maiden-lane, Manufacturer of Blank Books, and Importer and Dealer in PAPER and STATIONERY of every description. Particular attention paid to orders. 6-30

FARM LANDS FOR SALE.

THE ILLINOIS CENTRAL RAILROAD COMPANY

IS NOW PREPARED TO SELL

ABOUT TWO MILLION OF ACRES

OF

FARMING LANDS,

IN TRACTS OF FORTY ACRES AND UPWARD,

ON LONG CREDITS AND AT LOW RATES OF INTEREST.

These lands were granted by the Government, to aid in the construction of this Railroad, and are among the richest and most fertile in the State. They extend with the road, from Chicago on the northeast, to Cairo at the south, and from thence to Galena and Dunleith, in the extreme northwestern part of the State. Most of these lands lie immediately on, and within six miles of the road, and none are more than fifteen miles distant from it; hence, ready and cheap facilities are furnished for transporting their products to any of the Eastern or Southern markets The great increase of population by immigration, etc., and the consequent rapid growth of flourishing towns and villages, on the line of the road and throughout the State, furnishes a substantial and growing home demand for every kind of farm and garden produce.

In the Northern and Central parts of the State, prairie lands predominate, interspersed with magnificent groves of oak and other timber; in the Southern, the timber is more abundant, and exceedingly valuable.

The soil is a dark, rich mould, from one to five feet in depth, is gently rolling, and peculiarly fitted for grazing cattle and sheep or the cultivation of wheat, Indian corn, etc. The air is pure and bracing, the climate more healthy, mild and equable than that of any other part of the Union; while living streams and springs of excellent water abound.

Economy in cultivating, and great productiveness, are the well-known characteristics of Illinois lands. Trees are not required to be cut down, stumps grubbed, or stone picked off, as is generally the case in cultivating new land in the older States. The first crop of Indian corn, planted on the newly broken sod usually repays the cost of plowing and fencing.

Wheat sown on the newly-turned sod is sure to yield very large profits. A man with a plow and two yoke of oxen will break one and a half to two acres per day. Contracts can be made for breaking, ready for corn or wheat, at from $2 to $3 per acre. By judicious management, the land may be plowed and fenced the first, and under a high state of cultivation the second year.

Corn, grain, cattle, etc., will be forwarded at reasonable rates to Chicago, for the Eastern, and to Cairo for the Southern market.

Bituminous coal is extensively mined along the road, and supplies a cheap and desirable fuel; being furnished at many points at $1 50 to $4 per ton. Wood can be had at the same rates per cord. Extensive quarries have been opened in the southern part of the State, near the line of this road—of building stone of excellent quality—such as white and blue Limestone, and white and red Sandstone—which can be had for little more than the expense of transportation.

Government lands, in the Land States, having generally been withdrawn from market, emigrants from the Eastern States and Europe can be accommodated by this Company with valuable farms, at the old prices and terms, which, in all probability, will double in value within twelve months.

When those lands are restored to market, persons who think of settling on them, or in Minnesota, should bear in mind that the lands of this Company, at the prices for which they are sold, are better investments than those in other States or Territories, more remote from market, at Government prices; for the reason that the expense of transporting the products of the latter to market will always be a heavy drawback on them, and after a few years cultivation they require manuring, which is not the case with Illinois lands.

The same remarks hold good in relation to the lands in the Territories of Kansas and Nebraska, for although vacant lands may be found nearer the water courses, the distance to market is far greater, and every hundred miles the produce of those lands are carried either in wagons or interrupted water communications, increases the expenses of transportation, which must be borne by the settlers, in the reduced price of their products; and to that extent precisely are the incomes from their farms, and of course, on their investments, annually and every year reduced.

The great fertility of the lands now offered for sale by this Company, and their consequent yield over those of the Eastern and Middle States, is much more than sufficient to pay the difference in the cost of transportation, especially in view of the facilities furnished by this road, and others with which it connects, the operations of which are not interrupted by the low water of Summer, or the frost of Winter.

PRICE AND TERMS OF PAYMENT.

The price will vary from $5 to $25, according to location, quality, etc. Contracts for deeds may be made until further notice, stipulating the purchase money to be paid in five annual installments. The first to become due in two years from the date of contract, and the others annually thereafter. The last payment will become due at the end of the sixth year from the date of the contract, and the lands are not subject to taxation till finally paid for.

Interest will be charged at only three per cent. per annum.

As a security to the performance of the contract, the first two years' interest must be paid in advance, and it must be understood that at least one-tenth of the land purchased shall yearly be brought under cultivation. Twenty per cent. from the credit price will be deducted for cash. The Company's construction bonds will be received as cash.

Ready Framed Farm Buildings, which can be set up in a few days, can be obtained from responsible persons.

They will be twelve feet by twenty feet, divided into one living and three bedrooms, and will cost, complete, set up on ground chosen anywhere along the road, $250 in cash, exclusive of transportation. Larger buildings may be contracted for at proportionate rates. The Company will forward all the materials for such buildings over their road promptly.

It is believed that the price, long credit, and low rate of interest charged for these lands, will enable a man with a few hundred dollars in cash, and ordinary industry, to make himself independent before all the purchase money becomes due. In the mean time, the rapid settlement of the country will probably have increased their value four or five fold. When required, an experienced person will accompany applicants, to give information and aid in selecting lands.

Circulars, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad lands throughout the State—also, the cost of fencing, price of cattle, expense of harvesting, threshing, etc., by contract—or any other information—will be cheerfully given, on application, either personally or by letter, in English, French, or German, addressed to

JOHN WILSON,
Land Commissioner of the Illinois Central Railroad Co.
Office in Illinois Central Railroad Depot, Chicago, Ill.
118—120n123

1857.	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Jan.	..	..	..	..	1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31
Feb.	..	..	..	..	..	..	..
	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
March.	..	..	..	..	..	..	..
	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31	..	..	..	..
April.	..	..	..	1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	..	..
May.	..	..	..	..	..	1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31	..	..	..	..	..	..
June.	..	1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	..	..	..	..

1857.	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
July.	..	..	..	..	1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	..
Aug.	..	..	..	..	..	..	1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31	..	..	..	..	..
Sept.	..	..	1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	..	..	..
Oct.	..	..	..	..	1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31
Nov.	..	..	..	..	..	..	..
	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	..	..	..	..	..
Dec.	..	..	1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31	..	..

REVIEW OF PRICES, WEATHER, &c.

AMERICAN AGRICULTURIST OFFICE, NEW-YORK, Dec. 27, 1856.

Inland Navigation has now ceased for the season. The New-York State Canals were closed by ice on the 4th inst.; traffic was suspended on the Lakes soon after; while the Hudson River remained open until the 17th inst. The receipts of produce were heavy prior to the closing up of navigation, but have since largely fallen off. This has strengthened the market considerably, especially for Flour, Grain and Provisions. Owners of such articles are very confident that, at least, the prevailing currency will be maintained, and many of them even look for improved prices. Hence there is no general pressure to sell. The demand, however, is not now very active. Home dealers buy most freely; exporters have been discouraged by the recent accounts from Europe. The purchases for shipment are consequently somewhat limited. We notice an almost total absence of speculation. This is a very good sign. Speculation always results in injury—especially to the industrious producing and consuming classes. Capitalists alone derive any benefit from it, and they are not unfrequently caught in their own snares. Our available supply of Breadstuffs is quite moderate far the season. A comparative estimate of it for last year and this presents the following results:

Supply of Breadstuffs in New-York at the close of:

	1855.	1856.
Wheat Flour, bbls	596,000	392,000
Wheat, bush	788,000	532,000
Corn, bush	646,000	1,968,000

Most of the stock now here is in store, and not exposed to the influence of the variable wintry weather. This gives owners a decided advantage, and they appear fully aware of the fact, as they stoutly adhere to their claims, regardless of the reluctance with which buyers generally concede them, in any instance that necessity is not the impelling motive to purchase. The stock of Flour is fairly assorted, but of Wheat good, and prime lots are somewhat scarce, two-thirds of Wheat in market being of common quality, chiefly Upper Lake Spring. Mixed Corn is the plentiest. White and Yellow Corn is comparatively scarce. The supply of Provisions has been materially reduced during the month, by large sales at better and rising prices. Cotton is plenty, but actively inquired for, and advancing. Rice is freely offered at drooping prices, with only a moderate demand. Hay is scarce, and wanted. It has materially increased in value. Seeds are in light supply and demand. Prices have varied little. Wool is brisk, and rising. The stock of American Wool is rapidly diminishing. In other commodities, the business of the month has been moderate, with comparatively trifling changes in prices.

We annex a comparative list of the closing prices of the principal agricultural products, last month and this, showing the fluctuations since our previous issue:

	Nov. 28.	Dec. 27.
FLOUR—Com'n to Extra State	$6 10 a6 70	$6 25a 6 75
Common to Fancy Western	6 30a 6 70	6 35a 6 70
Extra Western	6 60a 9	6 70a 9
Fancy to Extra Genesee	6 75a 8 75	6 80a 8 75
Mixed to Extra Southern	6 85a 9	7 10a 9
RYE FLOUR—Fine and Super	3 25a 5 12 1-2	3 50a 5 37 1-2
CORN MEAL	3 37a 3 87 1-2	3 25a 3 75
WHEAT—Canada White	1 62a 1 71	1 70a 1 80
Western White	1 60a 1 72	1 68a 1 80
Southern White	1 60a 1 70	1 70a 1 80
All kinds of Red	1 33a 1 58	1 41a 1 60
CORN—Mixed	72a 73	68a 71
Yellow	74	72a 75
White	73a 75	72a 76
OATS—State and Western	46a 50	46a 50
Jersey	43a 46	43a 46
Southern	40a 44	40a 44
Rye	88a 90	85a 92
Barley	1 10a 1 30	1 10a 1 30
White Beans	2	2 06a 2 12 1-2
Black-eyed Peas, per 2 bush	3 75a 4	4
Cottoa—Middlings, per lb	12a 12 3-8	12a 13 1-8
Fair	12a 13	13a 13 3-4
Rice, per 100 lbs	3 62a 4 50	3 37a 4 37 1-2
Hops, per lb	7a 10 1-2	7a 10
Pork—Mess, per bbl	17 87a19 25	19 25a19 87 1-2
Prime, per bbl	17 a17 50	16 50a17
Beef—Country Mess	8 75a10 50	10 a12 12 1-2
Prime	6 a 7 25	6 50a 8
Dressed Hogs, per lb	7a 7 7-8	8a 8 1-4
Lard, in bbls, per lb	12a 12 7-8	12a 12 5-8
Butter—Western, per lb	16a 22	16a 20
State, per lb	20a 26	20a 25
Orange County, per lb	26a 29	26a 29
Cheese, per lb	8a 10 1-4	9a 10 1-2
Potatoes—Carters, per bbl	2 a 2 50	2 50a 3
Mercers, per bbl	1 75a 2 75	2 a 3 25
Onions—Reds, per bbl	1 62a 1 75	1 62a 1 75
White, per bbl	1 50a 2	3 a 4
Apples, per bbl	2 a 4 50	2 a 5
Eggs, fresh, per dozen	24a 25	a 28
Limed, per dozen	20a 21	23a 23
Feathers, Live Geese per lb	50a 55	50a 55
Seed—Clover, per lb	11a 12 1-4	12a 12 1-2
Flax, per bushel	2	1 95a 2
Timothy, mowed, per bushel	2 25a 2 50	2 25a 2 50
Timothy, reaped, per bushel	3	3
Sugar, New-Orleans, per lb	8a 10 1-2	8a 10 1-2
Molasses, New-Orleans, pr gl	57a 60	80
Tobacco—Kentucky, &c. pr lb	9a 18	9a 16
Seed Leaf, per lb	10a 32	10a 32
Wool—Domestic fleece, per lb	33a 58	34a 62
Domestic, pulled, per lb	32a 48	34a 50
Hemp—Undr'd Amer'n pr ton	210a 212 50	210a 215
Dressed American, per ton	240a 260	240a 260
Flax—Jersey, per lb	8a 11	9a 11
Hay, per 100 lbs	65a 85	1 a 1 12 1-2
Tallow, per lb	11a 11 3-4	11a 11 1-2

The subjoined tabular statement presents a summary of the total receipts of the leading kinds of Breadstuffs, by Railroad, River, Canal and Coastwise, for twenty-six business days, ending to-day, and also the sales at the Corn Exchonge in this city, for the same period:

	Receipts.	Sales.
Flour, bbls	448,000	346,595
Wheat, bush	1,143,550	1,360,450
Corn, bush	78,500	858,000
Rye, bush	22,500	109,900
Oats, bush	86,500	
Barley, bush	39,000	29,700
Total 26 days this month in bushels	3,610,050	4,090,575
Total 27 days last month in bushels	6,772,100	5,530,325

Beeves have come in less freely during the past month. The receipts for *four* weeks, ending Dec. 24th, compare as follows:

	1855.	1856.
Total of Beeves for four weeks	12,782	12,945
Weekly Average	3,195	3,236

The receipts were for week ending Dec. 3d: 3,382; Dec. 10th, 3,623; Dec. 17th, 3,679; Dec, 24th, 2,261. The prices advanced, Dec. 3d, ¼c. ₱ lb.; Dec. 10th, no change; 17th, a trifling advance, and another on the 24th; Wednesday last, Dec. 24th, the prices ranged: Premium cattle, 11c.@11¼c., net or dressed weight; first quality, 10c.@10¾c.; medium quality, 9¼c@9¾c.; poor quality, 8¼c.@9c.; poorest quality, 7¼c.@8c. Average price, 9¼c—an advance of about ¼c. during the month.

The receipts of sheep have also fallen off very materially, as will be seen by the following figures:

Receipts for four weeks, ending Dec. 24th:

	1855.	1856.
Total of Sheep and Lambs	44,795	38,931
Weekly Average	11,199	9,733

THE WEATHER—There has been but little *very* cold weather in this vicinity during the past month, and but one snow-storm, though the ground has been frozen most of the time. Sudden changes have been frequent with very high winds, doing extensive damage on land and water. Our weather notes, condensed, read: Nov. 29 clear A. M., cloudy P. M., and hail at night; 30th, rain A. M., clear P. M.; 31st, clear. Dec 1st and 2d, clear; 3d, rain A. M, clear and cold P. M.; 4th to 9th, clear with frosty mornings; 10th, clear and mild; 11th, rain and wind; 12th and 13th, clear and mild; 14th, heavy rain and wind; 15th to 18th, clear and cold at night, mercury at 5° on morning of 18th; 19th, coldest day of the month, thermometer 2° in the morning—milder at night; 20th, rain A. M.; 21st and 22d, clear and cold; 23d, three inches snow fell; 24th, cold and windy; 25th and 26th, clear and pleasant; 27th, mild and pleasant.

POSTAGE ON THE AGRICULTURIST.

Notwithstanding our frequent statements that the postageon this journal is but *six cents a year*, when prepaid by subscribers, yet, in violation of the plain letter of the law, several Post-Masters have persisted in charging 12 to 36 cents a year. The following official document will set he matter at rest hereafter we trust.—ED.

POST OFFICE DEPARTMENT. Office Appointment, WASHINGTON, D. C., Nov. 18, 1856.

SIR:—In answer to your communication of the 15th inst I have to state that the postage on the monthly "American Agriculturist," (each number weighing under three ounces) when paid quarterly in advance, is 1½ cents, or 6 cents a year in advance. HORATIO KING, 1st. Asst. P. M. Gen.

ORANGE JUDD, ESQ., *Am. Agriculturist*. New-York.

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